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JOINT CHINOOK
TECHNICAL COMMITTEE REPORT
2010 EXPLOITATION RATE ANALYSIS
AND MODEL CALIBRATION

REPORT TCCHINOOK (11)-3

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LIST OF ACRONYMS WITH DEFINITIONS

AABM	Aggregate Abundance Based Management
AC	Allowable Catch
AI	Abundance Index
ADF&G	Alaska Department of Fish & Game
AEQ	Adult Equivalent
Agreement	June 30, 1999 PST Annex and the related Agreement
AUC	Area Under the Curve
AWG	Analytical Working Group of the CTC
BCAFC	British Columbia Aboriginal Fisheries Commission
BTR	Base Terminal Run
C&S	Ceremonial & Subsistence
CBC	Central British Columbia Fishing area – Kitimat to Cape Caution
CCMP	Comprehensive Chinook Management Plan
CDFO	Canadian Department of Fisheries & Oceans
CI	Confidence Interval
CNR	Chinook Non-retention
CR	Columbia River
CRITFC	Columbia River Intertribal Fish Commission
CRFMP	Columbia River Fishery Management Plan
CTC	Chinook Technical Committee
CUS	Columbia Upriver Spring Chinook stock
CWT	Coded Wire Tag
DIT	Double Index Tag
ERA	Exploitation Rate Analysis
ESA	U S Endangered Species Act
Est+fw	Estuary Plus Fresh Water Area
FL	Fork Length
FMP	PFMC Framework Management Plan
FNC	First Nations Caucus
FOG	Fisheries Operational Guidelines
FR	Fraser River
GCG	Gene Conservation Group
GW	Gitwinksihlkw
GS	Strait of Georgia
HOR	Hatchery Origin Returns
IDFG	Idaho Department of Fish & Game
IDL	Inter/Dam Loss
IM	Incidental Mortality
ISBM	Individual stock based management
LFR	Lower Fraser River
LGS	Lower Strait of Georgia
mar	Marine Area
mar+fw	Marine Plus Fresh Water Area
MOC	Mid Oregon Coast
MRP	Mark-Recovery Program
MSF	Mark-Selective Fishery
MSH	Maximum sustainable harvest
MSY	Maximum Sustainable Yield for a stock, in adult equivalents
MSY ER	Exploitation Rate sustainable at the escapement goal for a stock, in AEQs
NBC	Northern British Columbia Dixon Entrance to Kitimat including Queen Charlotte Islands
NA	Not Available
NBC	Northern British Columbia Dixon Entrance to Kitimat including Queen Charlotte Islands
NM	Nautical Mile
NMFS	National Marine Fisheries Service
NOC	Oregon Coastal North Migrating Stocks
NPS	North Puget Sound
NPS-S/F	North Puget Sound Summer/Fall Chinook stock
NR	Not Representative
NWIFC	Northwest Indian Fisheries Commission
ODFW	Oregon Department of Fish & Wildlife
PFMC	Pacific Fisheries Management Council
PS	Puget Sound
PSC	Pacific Salmon Commission
PSARC	Pacific Scientific Advice Review Committee
PSMFC	Pacific States Marine Fisheries Commission
PST	Pacific Salmon Treaty
QDNR	Quinault Department of Natural Resources, Division of fisheries
QIN	Quinault Nation
QCI	Queen Charlotte Islands
RER	Recovery Exploitation Rate
S_{MSY}	Escapement producing MSY
SEAK	Southeast Alaska Cape Suckling to Dixon Entrance
SG	Strait of Georgia
SPS	South Puget Sound
SWVI	Southwest Vancouver Island
TAC	Technical Advisory Committee
TBR	Transboundary Rivers
TTC	Transboundary Technical Committee
UAF	University of Alaska Fairbanks
UFR	Upper Fraser River
UGS	Upper Strait of Georgia
USCTC	U S members of the CTC
USFWS	U S Fish & Wildlife Service
UW	University of Washington
WA/OR	Ocean areas off Washington and Oregon North of Cape Falcon
WAC	Washington Coast (Grays Harbor northward)
WACO	Washington, Oregon, Columbia River Chinook stock group
WCVI	West Coast Vancouver Island excluding Area 20
WDFW	Washington Department of Fisheries and Wildlife

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EXECUTIVE SUMMARY

This report contains the principal results of the annual exploitation rate assessment of CWT data through 2009 and the final preseason Chinook model calibration for 2010 (CLB 1007). Results include the Abundance Indices (AIs) for the aggregate abundance based management (AABM) fisheries and individual stock based management (ISBM) indices for each party (country).

AABM Abundance Indices and Associated Catches

The pre- and postseason AIs for the three AABM fisheries, Southeast Alaska All Gear (SEAK), Northern British Columbia Troll and Queen Charlotte Islands Sport (NBC), and West Coast Vancouver Island Troll and Outside Sport (WCVI) are presented in Table 1. The Agreement specifies that the AABM fisheries are to be managed through the use of the AIs. Each calibration provides the first postseason AIs for the previous year and the preseason AIs for the current year. Preseason AIs are used to set total allowable catch limits in the upcoming fishing season. Subsequently, postseason AIs (from the following year's calibration) are used to track catch overage and underage provisions. The first 2009 postseason AIs and the 2010 preseason AIs have now been finalized.

Table 1. Abundance Indices for 1999 to 2010 for the SEAK, NBC, and WCVI AABM fisheries.

	SEAK		NBC		WCVI	
Year	Preseason	Postseason	Preseason	Postseason	Preseason	Postseason
1999	1.15	1.12	1.12	0.97	0.60	0.50
2000	1.14	1.10	1.00	0.95	0.54	0.47
2001	1.14	1.29	1.02	1.22	0.66	0.68
2002	1.74	1.82	1.45	1.63	0.95	0.92
2003	1.79	2.17	1.48	1.90	0.85	1.10
2004	1.88	2.06	1.67	1.83	0.90	0.98
2005	2.05	1.90	1.69	1.65	0.88	0.84
2006	1.69	1.73	1.53	1.50	0.75	0.68
2007	1.60	1.34	1.35	1.10	0.67	0.57
2008	1.07	1.01	0.96	0.93	0.76	0.64
2009	1.33	1.20	1.10	1.07	0.72	0.61
2010	1.35		1.17		0.96	

In general, the AIs for 1999 through 2001 are low compared to AIs in the late 1980s and early 1990s but values increased substantially starting in 2002. The 2010 projected AI values have declined when compared to the high values for 2003 through 2006 in SEAK and NBC. In 2007, a decline in abundances was detected. The Agreement specifies an allowable catch for each AI for each fishery. The maximum allowable Treaty catch (total catch minus any hatchery add-on and exclusion catch) by fishery and year and the actual (observed) catches are shown in Table 2.

Table 2. Preseason allowable catches for 1999 to 2010, and postseason allowable catches and observed catches for 1999 to 2009, for AABM fisheries.

PST Treaty Allowable and Observed Catches									
Year	SEAK (T, N, S) [1]			NBC (T, S)			WCVI (T, S)		
	Pre-season Allowable Catch	Post-season Allowable Catch	Observed Catch	Pre-season Allowable Catch	Post-season Allowable Catch	Observed Catch	Pre-season Allowable Catch	Post-season Allowable Catch	Observed Catch
1999	192,800	184,200	198,842	145,600	126,100	86,726	128,300	107,000	36,413
2000	189,900	178,500	186,493	130,000	123,500	31,900	115,500	86,200	101,438
2001	189,900	250,300	186,919	132,600	158,900	43,500	141,200	145,500	117,670
2002	356,500	371,900	357,133	192,700	237,800	150,137	203,200	196,800	165,036
2003	366,100	439,600	379,519	197,100	277,200	191,657	181,800	268,900	175,821
2004	383,500	418,300	417,019 421,666 [2]	243,600	267,000	241,508	192,500	209,600	216,624
2005	416,400	387,400	387,749	246,600	240,700	243,606	188,200	179,700	202,662
2006	346,800	354,500	358,601	223,200	200,000	215,985	160,400	145,500	146,883
2007	329,400	259,200	328,419	178,000	143,000	144,235	143,300	121,900	139,150
2008	170,000	152,800	172,322	124,800	120,900	95,647	162,600	136,900	145,726
2009	218,800	176,000	214,451	143,800	139,100	109,470	107,800	91,300	124,617
2010	221,800			152,100			143,700		

[1] Nomenclature is T for troll, N for net, and S for sport.
[2] The lower value resulted from subtracting a disputed terminal exclusion catch for the Stikine River in 2004. Catch accounting has since been defined in the Transboundary Agreement.

Table 3 shows the differences between the postseason allowable catches and the observed catches in AABM fisheries for 1999–2009, and the cumulative differential for those years. All three AABM fisheries have cumulative underages. In SEAK, observed catches have been below final allowable catches for three of the eleven years; the cumulative differential is 0.5% or -0.6%. In NBC, observed catches have been below the final allowable catches in eight of the eleven years; the cumulative differential is –23.6%. In WCVI, observed catches have been below allowable catches in four of the eleven years; the cumulative differential is –6.9%.

Table 3. Deviations in numbers of Chinook salmon and percentages from catch targets derived from the first postseason AI (Table 2) for Pacific Salmon Treaty AABM fisheries in 1999 to 2009.

Year	SEAK		NBC		WCVI	
	Number of Fish	Percent Difference	Number of Fish	Percent Difference	Number of Fish	Percent Difference
1999	+14,642	+7.9%	-39,374	-31.2%	-70,587	-66.0%
2000	+7,993	+4.5%	-91,600	-74.2%	+15,238	+17.7%
2001	-63,381	-25.3%	-115,400	-72.6%	-27,830	-19.1%
2002	-14,767	-4.0%	-87,663	-36.9%	-31,764	-16.1%
2003	-60,081	-13.7%	-85,543	-30.9%	-93,079	-34.6%
2004	-1,281[1] +3,366	-0.3% +0.8%	-25,492	-9.5%	+7,024	+3.4%
2005	+349	+0.1%	+2,906	+1.2%	+22,962	+12.8%
2006	+4,101	+1.2%	+15,985	+8.0%	+1,383	+1.0%
2007	+69,219	+26.7%	+1,235	+0.9%	+17,250	+14.2%
2008	+19,522	+12.8%	-25,253	-20.9%	+8,826	+6.4%
2009	+38,451	+21.8%	-29,630	-21.3%	+33,317	+36.5%
Cum.	+14,666 +19,314	+0.5% 0.6%	-479,829	-23.6%	-117,260	-6.9%

[1] The lower value resulted from subtracting a disputed terminal exclusion catch for the Stikine River in 2004. Catch accounting has since been defined in the Transboundary Agreement.

ISBM Indices

For ISBM fisheries, the Agreement specified that Canada and the United States would reduce base period exploitation rates on specified stocks by 36.5% and 40%, equivalent to ISBM indices of 63.5% and 60%, respectively. This requirement is contained in Chapter 3 section 8(c) of the treaty and is referred to as the 'general obligation' and does not apply to stock groups that achieve their CTC agreed escapement goals. Estimated ISBM fishery indices are shown in Table 4 for Canadian fisheries and Table 5 for United States (U.S.) fisheries. Both tables present CWT-based indices for 2008, and Chinook model-based indices for 2010. The agreement specifies that the ISBM indices be forecasted preseason and evaluated postseason for each escapement indicator stock listed in Attachments I to V of the Chinook Chapter.

CWT-based Indices in 2008

Canadian ISBM indices from the CWT-based estimates for 2008 were reduced more than required under the agreement for four of the five CWT indices which could be calculated, the exception being WCVI Falls (Table 4).

Five of the 15 U.S. ISBM indices for the CWT-based estimates for 2008 were reduced more than required. The other 10 U.S. CWT-based ISBM indices exceeded 0.60. Four of these stocks (Upriver Brights, Quillayute, Hoh, and Mid-Columbia Summers) met or exceeded their respective escapement goals, and thus are exempted from the general obligation (Table 5).

Predicted ISBM Indices for 2010

Six of the 18 ISBM indices for Canada, based on outputs from calibration 1007, are predicted to exceed the allowable value of 0.635 for Canadian ISBM fisheries in 2010 (Table 4). Five of these six stocks are Puget Sound Natural Summer/Fall stocks, and do not have CTC-accepted escapement goals. One of the six stocks, the Lewis River, has a CTC escapement goal, but was below goal in 2009.

Eight of the 23 U.S. ISBM indices based on calibration 1007 are predicted to be above the allowable limit of 0.60 for U.S. ISBM fisheries in 2010 (Table 5). All have CTC agreed escapement goals: Hoh, Quillayute, Upriver Brights, Deschutes, Mid-Columbia Summers, Nehalem, Siletz, and Siuslaw. Of the stocks with goals, four were at or above goal in 2009, two were slightly under goal (Mid. Col. Summer, and Hoh) and two (the Oregon stocks) were below goal in 2009.

Table 4. Canadian 2008 ISBM indices based on CWT and the 2010 indices predicted from the PSC Chinook Model.

		Canadian ISBM Indices	
Stock Group	**Escapement Indicator Stock**	**CWT Indices for 2008**	**Model Indices for 2010**
Lower Strait of Georgia[3]	Cowichan Nanaimo	0.242 [4] NA [1,5]	0.203 [6]
Fraser Late[3]	Harrison River [2]	0.031 [7]	0.138
North Puget Sound Natural Springs[3]	Nooksack Skagit	NA NA	0.568 0.568
Upper Strait of Georgia[3]	Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish	0.073	0.122
Fraser Early (spring and summers)[3]	Upper Fraser, Mid Fraser, Thompson	NA	0.121
West Coast Vancouver Island Falls[3]	WCVI (Artlish, Burman, Kaouk, Tahsis, Tashish, Marble)	0.652 [8]	0.122
Puget Sound Natural Summer / Falls[3]	Skagit Stillaguamish Snohomish Lake Washington Green River	NA NA NA NA 0.106	0.709 0.791 0.718 0.690 [9] 0.670 [9]
North / Central B. C[3].	Yakoun, Nass, Skeena, Area 8	NA	0.177
Washington Coastal Fall Naturals	Hoko, Grays Harbor, Queets [2], Hoh [2], Quillayute [2]	NA	0.134
Columbia River Falls	Upriver Brights [2] Deschutes[2] Lewis [2]	NA NA NA	0.110 0.110 0.920
Columbia R Summers	Mid-Columbia Summers [2]	NA	0.084
Far North Migrating OR Coastal Falls	Nehalem [2], Siletz [2], Siuslaw [2]	NA	NA

[1] Not available (NA) because of insufficient data (lack of stock specific tag codes, base period CWT recoveries, etc).
[2] Stock or stock group with a CTC agreed escapement goal.
[3] Stock groups listed in Annex 4, Chapter 3, Attachment IV.
[4] An inconsistency was discovered between the approaches used to calculate the model-based and CWT-based indices. The former included harvest rates for terminal sport while the latter did not. Terminal sport harvest rates are now included in the calculation of both indices. Further review is yet required to determine whether the base period terminal sport harvest rates obtained from analyses of Big Qualicum CWT recoveries adequately represent impacts that would have occurred on Cowichan Chinook.
[5] Several problems have been identified in the approach previously used to calculate the CWT-based indices for Nanaimo Chinook. Until these problems are resolved, indices for this stock will not be reported.
[6] Although model-based indices were previously calculated separately for Cowichan and Nanaimo, these did not adequately represent impacts on either LGS stock because the model-based data represent an aggregate of the two stocks and methods do not currently exist to correctly disaggregate these data for calculation of the ISBM values. Until such methods are developed, a single index value only will be reported representing the aggregate.
[7] The terminal sport harvest rates for Chilliwack Hatchery Chinook, the indicator stock, were removed from the calculation for the Harrison River naturals because sport harvest has been essentially zero on the natural population.
[8] ISBM indices for WCVI naturals are based on information from Robertson Cr. hatchery stock, including terminal harvest rates. Prior to this report, harvest rates for terminal net and sport fisheries were treated as equal between the naturals and the hatchery indicator. However, this ignored the fact that since 1999, there has been no terminal net harvest of the vast majority of natural stocks on WCVI. Consequently, indices for WCVI naturals were adjusted to reflect this zero terminal net harvest rate. In addition, some inconsistencies were noted in the treatment of terminal harvest rates between the model and CWT indices for this stock group. These inconsistencies were eliminated.
[9] For Canadian ISBM fisheries, the same distribution and Index value are used for Lake Washington and Green R.

Table 5. U.S. 2008 ISBM indices based on CWT and the 2010 indices predicted from the PSC Chinook Model.

Stock Group	Escapement Indicator Stock	U.S. ISBM Indices	
		CWT Indices for 2008	Model Indices for 2010
Washington Coastal Fall Naturals[3]	Hoko	NA [1]	0.130
	Grays Harbor	0.390	0.382
	Queets [4]	0.610	0.285
	Hoh [2]	0.950	0.987
	Quillayute [2]	1.160	0.963
Columbia River Falls[3]	Upriver Brights [2]	1.830	0.801
	Deschutes[2]	0.540	1.004
	Lewis [2]	0.630	0.505
Puget Sound Natural Summer / Falls[3]	Skagit	NA	0.261
	Stillaguamish	NA	0.117
	Snohomish	NA	0.125
	Lake Washington	NA	0.517
	Green R	0.280	0.520
Fraser Late [3]	Harrison River [2]	0.260	0.209
Columbia R Summers[3]	Mid-Columbia Summers [2]	6.800	1.142
Far North Migrating OR Coastal Falls[3]	Nehalem [2]	0.920	0.916[5]
	Siletz [2]	0.670	0.698[5]
	Siuslaw [2]	0.640	2.028[5]
North Puget Sound Natural Springs[3]	Nooksack	0.210	0.181
	Skagit	NA	0.245
Lower Strait of Georgia	Cowichan,	4.040	0.216
	Nanaimo	NA	NA
Upper Strait of Georgia	Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish	NA	NC [4]
Fraser Early (spring and summers)	Upper Fraser, Mid Fraser, Thompson	NA	0.111
West Coast Vancouver Island Falls	WCVI (Artlish, Burman, Kaouk, Tahsis, Tashish, Marble)	NA	0.213
North / Central B. C.	Yakoun, Nass, Skeena, Area 8	NA	NC[4]

[1] Not available (NA) because of insufficient data (lack of stock specific tag codes, base period CWT recoveries, etc).
[2] Stock with a CTC agreed escapement goal.
[3] Stock groups listed in Annex 4, Chapter 3, Attachment V.
[4] NC means that the current model assumes the stock is not caught in U.S. ISBM fisheries.
[5] Oregon coast stocks are based on a three year average harvest rate in in-river fisheries and are thus high. In addition Base Period harvest rates were low in terminal area fisheries.

1 INTRODUCTION

This report describes the methods and results of the cohort analysis, used to estimate exploitation rates from coded wire tag (CWT) data, and the Pacific Salmon Commission (PSC) Chinook model calibration. The results of the 2010 preseason calibration (CLB 1007) are based on the exploitation rate analysis (ERA) using CWT data through fishery year 2008, coast-wide data on catch, spawning escapements and age structure through 2009, and forecasts of Chinook returns expected in 2010. This chapter includes:

1) estimated postseason abundance indices for 1979 through 2009 and the preseason projection for 2010 for the aggregate abundance based management (AABM) fisheries,
2) estimated non-ceiling indices, referred to as the individual stock based management (ISBM) indices in this report, for 1999 to 2008 and modeled ISBM projections for the 2010 ISBM fisheries,
3) estimated stock composition for 1979 through 2009 and a projection for 2010 for the AABM and other fisheries, and
4) estimated fishery indices (harvest rates) for the AABM fisheries.

Appendix A shows the relationship between the exploitation rate indicator stocks, model stocks, and Pacific Salmon Treaty (PST) Annex stocks. Appendices B to I present some additional output from the exploitation rate analysis and model calibration beyond the summaries presented in this report. Appendix B provides the time series of ISBM CWT indices, and ISBM model indices from calibration 1007. Appendix C shows the percent distribution of landed catch and total mortality by catch year for exploitation rate indicator stocks. Appendix E has the time series of brood year exploitation rates for the CWT indicator stocks. Appendix F shows the model estimates of stock composition in AABM and other sport and troll fisheries. Appendix G lists the incidental mortality rates used in the CTC model. Appendix H gives the time series of total abundance indices (AIs) for the AABM fisheries, and Appendix I provides the AIs for each model stock for each AABM fishery. Appendix J presents the time series of CWT-based fishery exploitation rate indices by stock, age, and fishery. CWT data quality issues and their resolution are detailed in Appendix K.

1.1 Methods

The exploitation rate assessment is performed through cohort analysis of CWT release and recovery data (CTC 1988). Cohort analysis is the reconstruction of the exploitation history of a given stock and brood year and is used to produce a variety of statistics, including total exploitation rates, age and fishery specific exploitation rates, maturation rates, pre-age 2 recruitment survival indices (Appendix D), and annual distribution of fishery-related mortalities.

Estimates of age and fishery-specific exploitation and maturation rates from the cohort analysis are combined with data on catches, escapements, non-retention, and enhancement to complete the annual calibration of the CTC Model. The calibration procedure estimates pre-age 2 survival to recruitment for the stocks included in the model.

Results from the annual preseason calibration of the Chinook model are used to calculate: 1) AIs for the three AABM fisheries; 2) postseason AIs for the previous year; and 3) preseason and

postseason ISBM indices. Projected AIs for 2010 are used to determine the allowable 2010 catch of Treaty Chinook for AABM fisheries. Postseason AIs are used to appraise the season's allowable catches and to evaluate compliance for AABM fisheries. For the ISBM fisheries, the Agreement specifies that Canada and the United States will reduce the exploitation rate from the 1979–1982 base period by 36.5% and 40.0%, respectively, on stocks that have not achieved their Chinook Technical Committee (CTC) agreed escapement goals. The ISBM index is used to estimate the annual reduction in exploitation rates relative to the base period. Postseason ISBM indices for 2009 are computed using results of the exploitation rate analysis. Forecasts of the 2010 ISBM indices are computed using the PSC Chinook salmon model. The Agreement specifies that the postseason ISBM indices estimated through exploitation rate analysis of CWT recoveries will be used to assess the ISBM index.

2 EXPLOITATION RATE ASSESSMENT (THROUGH FISHERY YEAR 2008)

The exploitation rate assessment is performed through cohort analysis, a procedure that reconstructs the exploitation history of a given stock and brood year using CWT release and recovery data (CTC 1988). The procedure produces a variety of statistics, including total exploitation rates, age and fishery specific exploitation rates, maturation rates, pre-age 2 recruitment survival indices, and annual distribution of fishery-related mortalities. Estimates of age and fishery-specific exploitation and maturation rates from the cohort analysis are combined with data on catches, escapements, non-retention, and enhancement to complete the annual calibration of the PSC Chinook salmon model. The calibration procedure estimates pre-age 2 recruitment survivals for the stocks included in the model.

The CTC currently monitors 43 exploitation rate indicator stocks that are coded-wire tagged, but only 40 were used for analyses in this chapter (Table 2-1). This is primarily because some of these stock codes have been discontinued while new ones have been added. The historic time series was expanded for: Nanaimo, Nicola, Dome, and Lower Shuswap, and three wild indicator tag codes in Southeast Alaska (Taku, Unuk and Chikamin). An exploitation rate indicator stock is not used in the ERA if the number of CWT recoveries is very limited (minimum of 35 estimated recoveries for a given stock and age combination) or there is no quantitative estimate of tags in the spawning escapement (see footnotes in Table 2-2). Indicator stocks used for exploitation rate analysis and the type of analyses performed for these stocks are shown in Table 2-2. The relationship between the exploitation rate indicator stocks, model stocks, and PST Annex stocks are shown in Appendix A. Extrapolation of results to similar stocks and/or generalizations about fishery impacts will only be appropriate to the extent that the exploitation rate indicator stocks are representative of the stock groups they are intended to represent.

2.1 Brood Year Exploitation Rates (Appendix E)

Brood year exploitation rates provide the best measure of the cumulative impact of fisheries upon all age classes of a stock. The rates are computed as the ratio of adult equivalents (AEQ) total fishing mortality to AEQ total fishing mortality plus escapement. The AEQ factor represents the proportion of fish of a given age that would, in the absence of fishing, subsequently leave the ocean to return to the terminal area on the spawning migration. The numerator of the brood year exploitation rate may be partitioned into components for AEQ reported catch and AEQ incidental mortality, with each component occurring in either ocean fisheries or freshwater fisheries.

Table 2-1. Exploitation rate indicator and DIT stocks, their location, run type, and smolt age.

Stock/Area	Exploitation Rate Indicator Stocks	Hatchery	Run Type	Age
Southeast Alaska	Alaska Spring	Crystal Lake, Whitman Lake, Little Port Walter, Deer Mountain, Neets Bay	Spring	Age 1
North/Central BC	Kitsumkalum	Terrace	Summer	Age 1
WCVI	Robertson Creek	Robertson Cr	Fall	Age 0
Strait of Georgia	Quinsam	Quinsam	Fall	Age 0
	Puntledge	Puntledge	Summer	Age 0
	Big Qualicum	Big Qualicum	Fall	Age 0
	Cowichan	Cowichan	Fall	Age 0
	Nanaimo	Nanaimo	Fall	Age 0
Fraser River	Chilliwack (Harrison Stock)[1]	Chilliwack	Fall	Age 0
	Lower Shuswap	Shuswap Falls	Summer	Age 0
	Nicola	Spius Creek	Spring	Age 1
	Dome	Penny Creek	Spring	Age 1
North Puget Sound	Skagit Spring Fingerling	Marblemount	Spring	Age 0
	Skagit Spring Yearling[1]	Marblemount	Spring	Age 1
	Skagit Summer Fingerling	Marblemount	Summer	Age 0
	Nooksack Spring Fingerling	Kendall Cr	Spring	Age 0
	Nooksack Spring Yearling	Kendall Cr	Spring	Age 1
	Samish Fall Fingerling [1]	Samish	Summer/Fall	Age 0
Central Puget Sound	Stillaguamish Summer Fingerling	Stillaquamish Tribal	Summer/Fall	Age 0
	South Puget Sound Fall Fingerling[1]	Soos Cr / Grovers Cr	Summer/Fall	Age 0
	Univ of Washington Accelerated	UW	Summer/Fall	Age 0
South Puget Sound	South Puget Sound Fall Yearling	Tumwater Falls	Summer/Fall	Age 1
	White River Spring Yearling[2]	White R	Spring	Age 1
	Nisqually Fall Fingerling [1]	Clear Cr	Summer/Fall	Age 0
Hood Canal	George Adams Fall Fingerling [1]	George Adams	Summer/Fall	Age 0
Juan de Fuca	Elwha Fall Fingerling	Lower Elwha	Summer/Fall	Age 0
	Hoko Fall Fingerling	Hoko	Summer/Fall	Age 0
North Wash Coast	Sooes Fall Fingerling	Makah NFH	Fall	Age 0
	Queets Fall Fingerling (wild brood)	Salmon R (WA)	Fall	Age 0
Willamette R	Willamette Spring[1]	Willamette H	Spring	Age 1
Lower Columbia R	Cowlitz Tule (WA)	Cowlitz	Fall Tule	Age 0
	Spring Creek Tule (WA)[1]	Spring Cr NFH	Fall Tule	Age 0
	Columbia Lower River Hatchery[1]	Big Creek	Fall Tule	Age 0
	Lewis River Wild	Wild	Fall Bright	Age 0
Upper Columbia R	Columbia Summers (WA)	Wells	Summer	Age 1
	Columbia Upriver Bright	Priest Rapids	Fall Bright	Age 0
	Hanford Wild	Wild	Fall Bright	Age 0
Snake River	Lyons Ferry [3,1]	Lyons Ferry	Fall Bright	Age 0
North Oregon Coast	Salmon River	Salmon R	Fall	Age 0
Mid Oregon Coast	Elk River	Elk R	Fall	Age 0

[1] DIT tags associated with this stock
[2] No longer adipose fin clipped
[3] Subyearlings have been CWT-tagged since brood year 1986, except for brood years 1993 through 1997

Table 2-2. The 40 CWT exploitation rate indicator stocks used in the exploitation rate analysis and the data derived from them: fishery, ISBM and survival indices, brood exploitation rates (BER), and stock catch distribution (Dist) with quantitative escapement estimates (Esc) and tagging during the base period years 1979–1982.

Exploitation Rate Indicator Stocks	Fishery Index	ISBM Index	BER[1]	Survival Index	Dist	Esc	Base Tagging
Alaska Spring	Yes	—	Total	Yes	Yes	Yes	Yes
Kitsumkalum	—	—	Total	Yes	Yes	Yes	—
Robertson Creek	Yes	Yes	Ocean[1]	Yes	Yes	Yes	Yes
Quinsam	Yes	Yes	Total	Yes	Yes	Yes	Yes
Puntledge	Yes	—	Total	Yes	Yes	Yes	Yes
Big Qualicum	Yes	Yes	Total	Yes	Yes	Yes	Yes
Nanaimo	—	Yes	Total	Yes	Yes	Yes	Yes
Dome	—	—	Total	—	Yes	Yes	—
Lower Shuswap	—	—	Total	—	Yes	Yes	Yes
Nicola	—	—	Total	—	Yes	Yes	—
Cowichan	Yes	Yes	Total	Yes	Yes	Yes	—
Chilliwack (Harrison Fall Stock)	—	Yes	Total	Yes	Yes	Yes	—
Nooksack Spring Fingerling	—	—	[4]	—	Yes	Yes	—
Nooksack Spring Yearling	—	Yes	[4]	Yes	Yes	Yes[3]	—
Skagit Spring Fingerling	—	—	Ocean	—	Yes	Yes	—
Skagit Spring Yearling	—	—	Ocean	Yes	Yes	Yes[3]	—
Samish Fall Fingerling	Yes	—	Ocean	Yes	Yes	Yes[3]	Yes
Skagit Summer Fingerling	—	—	Ocean	—	Yes	Yes	—
Stillaguamish Summer Fingerling	—	Yes	[4]	—	Yes	—	—
Nisqually Fall Fingerling	—	—	[4]	—	Yes	—	Yes
University of Washington Accelerated	Yes	[2]	[2]	—	Yes	Yes[3]	Yes
George Adams Fall Fingerling	Yes	[2]	[2]	Yes	Yes	Yes[3]	Yes
South Puget Sound Fall Fingerling	Yes	Yes	Ocean	Yes	Yes	Yes[3]	Yes
South Puget Sound Fall Yearling	Yes	[2]	[2]	Yes	Yes	Yes[3]	Yes
Squaxin Pens Fall Yearling	—	[2]	[2]	Yes	Yes	Yes[3]	—
White River Spring Yearling	—	—	[4]	Yes	Yes	Yes[3]	Yes
Elwha Fall Fingerling	—	—	[4]	Yes	Yes	—	—
Hoko Fall Fingerling	—	—	Ocean	Yes	Yes	Yes	—
Sooes Fall Fingerling	—	—	Ocean	Yes	Yes	Yes	—
Queets Fall Fingerling	—	Yes	[4]	Yes	Yes	—	Yes
Willamette Spring	Yes	—	Ocean	Yes	Yes	Yes	Yes
Columbia Summers	Yes	Yes	Total	Yes	Yes	Yes	—
Cowlitz Tule	Yes	—	Ocean	Yes	Yes	Yes	Yes
Spring Creek Tule	Yes	—	[2]	Yes	Yes	Yes	—
Columbia Lower River Hatchery	Yes	—	[2]	Yes	Yes	Yes	Yes
Upriver Bright	Yes	Yes	Total	Yes	Yes	Yes	Yes
Hanford Wild	—	—	Total	Yes	Yes	Yes	—
Lyons Ferry	—	—	Total	Yes	Yes	Yes	—
Lewis River Wild	Yes	Yes	Total	Yes	Yes	Yes	Yes
Salmon River	Yes	Yes	Ocean	Yes	Yes	Yes	Yes

[1] For stocks of hatchery origin and subject to terminal fisheries directed at harvesting surplus hatchery production, ocean fisheries do not include terminal net fisheries. Otherwise, total fishery includes terminal net fisheries.

[2] Hatchery stock not used to represent naturally spawning stock.

[3] Only hatchery rack recoveries are included in escapement.

[4] Insufficient escapement data for exploitation rate analysis.

The exploitation rate on an indicator stock may differ from the exploitation rate on the wild stock it represents if the indicator stock is of hatchery origin and subject to mark-selective fisheries (MSFs), or terminal fisheries directed at harvesting surplus hatchery production. In the case of the brood year exploitation rate, this difference was addressed by computing a rate for ocean fisheries and a total for all fisheries. Ocean fisheries were defined to include marine sport and troll fisheries and CWT recoveries of ocean age 2 and age 3 fish in all non-terminal net fisheries. By partitioning the fisheries in this way, the most appropriate measure of brood year exploitation rate on wild stocks could be selected. The method selected for each exploitation rate indicator stock is given in Table 2-2. If broods are incomplete, but have data through age 4 (age 5 for spring stocks), then average maturation rates are applied to predict the completed brood value.

The brood year exploitation rate (BYEXP) is calculated as:

$$BYEXP_{BY,F} = \frac{\sum_{a=Minage}^{Maxage}\left(\sum_{f\in\{F\}} TotMorts_{BY,a,f} * AEQ_{BY,a,f}\right)}{\sum_{a=Minage}^{Maxage}\left(\sum_{f=1}^{Numfisheries} TotMorts_{BY,a,f} * AEQ_{BY,a,f} + Esc_{BY,a}\right)} \qquad \text{Equation 2.1}$$

The AEQ rate is calculated as:

$$AEQ_{BY,a-1,f} = MatRte_{a-1,BY} + (1 - MatRte_{a-1,BY}) * Surv_a * AEQ_{BY,a,f}$$
$$AEQ_{BY,Maxage,f} \equiv 1.0 \qquad \text{Equation 2.2}$$

See Table 2-3 for a description of notation.

Table 2-3. Parameter definitions for all equations except those used for the stratified proportional fishery index (SPFI) in SEAK.

Parameter	Description
a	age class
A	set of all ages that meet selection criteria
$AEQ_{BY,a,f}$	adult equivalent factor in brood year BY, age a, and fishery f (for terminal fisheries, AEQ = 1.0 for all ages)
$Age2CohSurv_{BY}$	cohort survival of CWT fish to age 2 (pre-fishery) for brood year BY
$AvgMatRte_a$	average maturation rate for age a
$BPER$	base period years (1979 through 1982)
$BYEXP_{BY,F}$	brood year exploitation rate in adult equivalent for brood year BY and fishery F
$BPISBMER_{f,a}$	average base period ISBM exploitation rate for fishery f and age a
BY	brood year
$Cohort_{BY,a}$	cohort by brood year BY and age a *(where stock is implied from context)*
$Cohort_{s,BY,a}$	cohort by stock s, brood year BY and age a *(where stocks are defined explicitly in a summation)*
CY	calendar year
$CYDist_{CY,F}$	proportion of total stock mortality (or escapement) in a calendar year CY attributable to a fishery or a set of fisheries F
CY_{end}	end year for average
CY_{start}	start year for average
$d_{t,s,a}$	distribution parameter for timestep t, stock s, and age a
$Esc_{Y,a}$	escapement past all fisheries for either brood year BY or calendar year CY and age a
$ER_{s,a,f,CY}$	exploitation rate (based on total mortality) at age a divided by cohort size at age a for stock s in fishery f in year CY
$EV_{n,BY}$	the stock productivity scalar for iteration n and brood year BY
f	a single fishery
$f \in \{F\}$	a fishery f within the set of fisheries of interest
F	ocean, terminal or other sets of fisheries or spawning escapements
$FI_{f,CY}$	fishery exploitation rate index for fishery f in year CY
$FP_{a,s,CY,f}$	ratio of $ER_{s,a,f,CY}$ to BPISBMER
$ISBMIdx_{CY}$	ISBM index for calendar year CY
$ISBMIdx_{CY}$	ISBM index for calendar year CY
$MatRte_{a-1,BY}$	maturity rate at next younger age by brood year
$Maxage$	maximum age of stock (generally age 6 for stream type stocks, age 5 for ocean type stocks)
$Minage$	minimum age of stock (generally age 3 for stream type stocks, age 2 for ocean type stocks)
$Morts_{CY,a,f}$	landed or total fishing mortality in year CY and age a in fishery f
NM_a	annual natural mortality prior to fishing on age a cohort
$Numfisheries$	total number of fisheries
RT_{CY}	ratio of the catch quota in the current year to the catch that would be predicted given current abundance, current size limits, and base period exploitation rates
s	a particular stock
S	set of all stocks that meet selection criteria
SC_{BY}	ratio of the estimated and model predicted terminal run for brood year BY
$Surv_a$	survival rate ($1-NM_a$) by age
$TotMorts_{BY,a,f}$	total fishing related mortality for brood year BY or calendar year CY or during the base period $BPER$ and age a in fishery f
$TotCWTRelease_{BY}$	number of CWT fish released in the indicator group in brood year BY

2.2 Brood Year Survival Rates and Indices (Appendix D)

The brood year survival of CWT-tagged smolts after release is calculated for most exploitation rate indicator stocks (Table 2.2). This survival rate is frequently referred to as the marine survival of the tag group but also includes any mortality occurring in freshwater following release. Interpretation of this survival rate is stock specific. Two measures of survival indices or patterns are computed: survival to the age 2 cohort based on CWT recoveries, and the "environmental variable" (EV) determined from the calibration of the PSC Chinook model (described in the following section). The CWT-based estimate is our most direct measure of a brood's survival, but this measure is not available until the brood is complete (i.e., all ages have returned to spawn). The model EV parameter, however, provides a more current measure of the survival rates expected in brood years contributing to present and future fisheries.

For CWT data, the survival rate for a stock and brood year is the estimated age 2 cohort (from the cohort analysis) divided by the number of CWT fish released.

$$Age2CohSurv_{BY} = \frac{Cohort_{BY,2}}{TotCWTRelease_{BY}} \qquad \text{Equation 2.3}$$

where $Cohort_{BY,2}$ is calculated recursively from the oldest age down to age-2 using:

$$Cohort_{BY,a} = \frac{\sum_{f=1}^{Numfisheries} TotMorts_{BY,a,f} + Esc_{BY,a} + Cohort_{BY,a+1}}{1 - NM_a} \qquad \text{Equation 2.4}$$

If ocean age-5 tags are absent, the age-4 cohort size is estimated using the following formula:

$$Cohort_{BY,A} = \frac{\sum_{f \in Preterminal} TotMorts_{BY,A,f} + \frac{Esc_{BY,A} + \sum_{f \in Terminal} TotMorts_{BY,A,f}}{AvgMatRte_A}}{1 - NM_A} \qquad \text{Equation 2.5}$$

2.3 Stock Distribution Patterns (Appendix C)

Brood year exploitation rates can indicate the fisheries that exploit a stock and the rates that occur on a specific brood, but do not indicate the exploitation pattern on a stock during one calendar year (across broods). Stock mortality distributions (reported catch or total) in a calendar year are calculated over all ages in the fisheries (if at least three brood years contribute to recoveries) as follows:

$$CYDist_{CT,F} = \frac{\sum_{a=Mnage}^{Maxage} \sum_{f \in \{F\}} Morts_{CT,a,f} * AEQ_{BY=CT-a,a,f}}{\sum_{a=Mnage}^{Maxage} \left(\sum_{f=1}^{Numfisheries} Morts_{CT,a,f} * AEQ_{BY=CT-a,a,f} + Esc_{CT,a} \right)} \qquad \text{Equation 2.6}$$

It should be noted that mortality distributions may not indicate the relative distribution of an indicator stock. For example, closure of a fishery would result in no reported catch but this would not necessarily indicate zero abundance of the stock in that fishing area.

2.4 Fishery Indices (Appendix J)

When the Pacific Salmon Treaty was negotiated in 1985, catch ceilings and increases in stock abundance were expected to reduce harvest rates in fisheries. The fishery index (FI) provided a means to assess performance against this expectation. Relative to the base period, an index less than 1.0 represents a decrease from base period harvest rates while an index greater than 1.0 represents an increase. While the determination of allowable catch for AABM fisheries in the 1999 Agreement is different from the original PST catch ceilings, these fishery indices continue to provide a useful index of change in harvest rates in these fisheries. Fishery indices are used to measure relative changes in fishery harvest rates because it is not possible to directly estimate the fishery harvest rates.

Fishery indices are computed in AEQs for both reported catch and total mortality (reported catch plus estimated incidental mortality). The total mortality index provides a consistent means of representing changes in reported catch and incidental mortality, including those associated with regulatory measures such as minimum size limits and CNR periods. The AEQ exploitation rate (ER) is estimated by;

$$ER_{s,a,f,CY} = \frac{TotMorts_{s,a,f,CY} * AEQ_{s,BY=CY-a,a,f}}{Cohort_{s,BY=CY-a,a} * (1 - NM_a)} \qquad \text{Equation 2.7}$$

and a ratio of means (ROM) estimator is used to calculate the fishery index (FI),

$$FI_{f,CY} = \frac{\sum_{s\in\{S\}}\sum_{a\in\{A\}} ER_{s,a,f,CY}}{\left(\frac{\sum_{BPER=79}^{82}\sum_{s\in\{S\}}\sum_{a\in\{A\}} ER_{s,a,f,BPER}}{4}\right)} \qquad \text{Equation 2.8}$$

For AABM fisheries, indices are presented for troll gear only, although the catch limitations also apply to recreational fisheries and net fisheries in SEAK and the recreational fisheries in NBC and WCVI. As in past years, recoveries from the troll fishery were used because the majority of the catch and the most reliable CWT sampling occur in these fisheries. In addition, there are data limitations in the base period for the sport fisheries. Because the allocation of the catch among gear types has changed in some fisheries (e.g., the proportion of the catch harvested by the sport fishery has increased in the SEAK and NBC fisheries), the indices may not represent the harvest impact of all gear types.

The CTC uses fishery indices to reflect changes in fishery impacts relative to the base period (fishery years 1979–1982). The ROM estimator of the fishery index limits inclusion of stocks to

those with adequate tagging during the base period, but fishing patterns for some fisheries have changed substantially since then. One example of this is the SEAK troll fishery where the catch during the winter season has increased, the spring fishery has been largely curtailed, and the summer season has become markedly shorter. Because stock complexes are dynamic throughout the year, stock specific impacts of the SEAK fishery have likely changed over time as season structure has been altered. To incorporate changes in stock composition and to include stocks without base period data, the CTC examined alternative derivations of fishery indices (CTC 1996).

The CTC determined that a useful fishery index should reflect both changes in harvest rates and stock distribution. Three general, desirable characteristics were identified:

1) the index should measure changes in fishery harvest rates if the distribution of stocks is unchanged from the base period;
2) the index should have an expected value of 1.0 for random variation around the base period fishery harvest rate, cohort size, and stock distributions; and
3) the index should weight changes in stock distribution by abundance.

After exploring several alternatives, the CTC concluded that the best estimate for a fishery index would consist of the product of a fishery harvest rate index and an index of stock abundance weighted by average distribution (i.e., the proportion of a cohort vulnerable to the fishery). To that effect a report by the CTC (2009) stated that for all AABM fisheries the stratified proportional harvest rate index (SPFI) was the most accurate and precise in estimating the harvest rate occurring in a fishery. This assessment supported the application of the SPFI adjusted for untagged stocks as presented by Alaska Department of Fish and Game (ADF&G), and is also developed for WCVI and NBC.

For computation of the SPFI, the CWT harvest rate ($h_{t,cy}$) must initially be set to an arbitrary value between 0 and 1. Then, the distribution parameter ($d_{t,s,a}$) is calculated (Equation 2.9), and the result is substituted into Equation 2.10 below to recursively recalculate $h_{t,cy}$ and subsequently $d_{t,s,a}$. The largest stock-age distribution parameter in a stratum is then set to 1 to create a unique solution. See Table 2-4 for notation description.

$$d_{t,s,a} = \sum_{CY} r_{t,CY,s,a} \Big/ \sum_{CY} \left(h_{t,CY} * n_{CY,s,a} \right) \qquad \text{Equation 2.9}$$

$$h_{t,CY} = \sum_{s} \sum_{a} r_{t,CY,s,a} \Big/ \sum_{s} \sum_{a} \left(d_{t,s,a} * n_{CY,s,a} \right) \qquad \text{Equation 2.10}$$

The resulting unique solution is inserted into the following equations to compute the yearly harvest rates for each strata and the overall fishery.

$$H_{t,CY} = \left[\left(\frac{\sum_{s} \sum_{a} c_{t,CY,s,a}}{\sum_{s} \sum_{a} r_{t,CY,s,a}} \right) * \left(C_{t,CY} - A_{t,CY} \right) \right] \Big/ \left[\left(C_{t,CY} - A_{t,CY} \right) / h_{t,CY} \right] \qquad \text{Equation 2.11}$$

$$H_{CY} = \sum_t \left[\left(\frac{\sum_s \sum_a c_{t,CY,s,a}}{\sum_s \sum_a r_{t,CY,s,a}} \right) * (C_{t,CY} - A_{t,CY}) \right] \Bigg/ \sum_t \left[(C_{t,CY} - A_{t,CY}) / h_{t,CY} \right] \qquad \text{Equation 2.12}$$

$$S_{t,CY} = H_{t,CY} \Big/ \sum_{CY=1979}^{1982} H_{t,CY} \qquad \text{Equation 2.13}$$

$$S_{CY} = H_{CY} \Big/ \sum_{CY=1979}^{1982} H_{CY} \qquad \text{Equation 2.14}$$

Table 2-4. Parameter definitions for equations used for SPFI in SEAK.

Parameter	Description
$A_{t,CY}$ =	Alaska hatchery origin catch by strata *t*, year *CY*
$c_{t,CY,s,a}$ =	adult equivalent CWT catch by strata *t*, year *CY*, stock *s* and age *a*
$C_{t,CY}$ =	catch by strata *t*, year *CY*
$d_{t,s,a}$ =	distribution parameter by strata *t*, stock *s* and age *a*
$h_{t,CY}$ =	CWT harvest rate by strata *t*, year *CY*
$H_{.CY}$ =	harvest rate by year *CY*
$H_{t,CY}$ =	harvest rate by strata *t*, year *CY*
$n_{CY,s,a}$ =	CWT cohort size by year *CY*, stock *s* and age *a*
$r_{t,CY,s,a}$ =	CWT recoveries by strata *t*, year *CY*, stock *s* and age *a*
$S_{.CY}$ =	SPFI by year *CY*
$S_{t,CY}$ =	SPFI by strata *t*, year *CY*

2.5 ISBM Indices

The CTC (1996) proposed a non-ceiling fishery index as a measure of the pass-through provision in the 1985 PST. This index compares an 'expected' AEQ mortality (assuming base period exploitation rates and current stock abundance) with the observed AEQ mortality on a stock within a calendar year, over all non-ceiling fisheries of a party (Table 2-5). Index values less than 1.0 indicate that the exploitation rates have decreased relative to the base period. Under the 2008 PSC Agreement the CTC is required to continue to use the ISBM indices to measure the performance of ISBM fisheries. Paragraph 8, chapter 3 of the agreement states:

8. With respect to ISBM fisheries, the Parties agree that:

(a) fisheries shall be managed over time to contribute to the achievement of agreed MSY or other biologically-based escapement objectives that are consistent with recovering and sustaining healthy and productive stocks and fisheries. Escapement objectives may be expressed in terms of numbers of spawners associated with MSY or derived from exploitation rate limits for naturally spawning stocks;

(b) either or both Parties may implement domestic policies that constrain their respective fishery impacts on depressed Chinook stocks to a greater extent than is required by this Paragraph;

(c) for the purposes of this Chapter, and based on stock-specific information exchanged preseason, Canada and the United States shall limit the total adult equivalent mortality rate in the aggregate of their respective ISBM fisheries to no greater than 63.5 percent and 60 percent, respectively, of that which occurred during the 1979 to 1982 base period on the indicator stocks identified in Attachments IV and V12 for stocks not achieving their management objectives. This limit shall be referred to as the general obligation. For those stocks for which the general obligation is insufficient to meet the agreed MSY or other biologically-based escapement objectives, the Party in whose waters the stock originates shall further constrain its fisheries to the extent necessary to achieve the agreed MSY or other biologically-based escapement objectives, provided that a Party is not required to constrain its fisheries to an extent greater than the average of that which occurred in the years 1991to 1996. Notwithstanding the foregoing, a Party need not constrain its ISBM impacts on a stock originating in its waters to an extent greater than necessary to achieve the agreed MSY or other biologically-based escapement objectives;

Table 2-5. Fisheries included in the ISBM index by nation.

Fisheries Included in ISBM Index	
United States	**Canada**
Washington/Oregon Ocean Troll	Central BC Troll
Puget Sound Northern Net	Strait of Georgia Troll
Puget Sound Southern Net	North BC Net
Washington Coastal Net	Central BC Net
Freshwater Terminal Net	West Coast Vancouver Island Net
Washington/Oregon Ocean Sport	Strait of Juan de Fuca Net
Puget Sound Northern Sport	Johnstone Strait Net
Puget Sound Southern Sport	Fraser Net
Freshwater Terminal Sport	Freshwater BC Net
	Strait of Georgia Sport
	Strait of Juan de Fuca Sport
	Freshwater BC Sport

The formula proposed by the CTC in 1991 and referred to in CTC (1996) for a stock/country combination is:

$$ISBMIdx_{CT} = \frac{\sum_{f \in \{F\}} \sum_{a=Minage}^{Maxage} \left(TotMorts_{CT,f,a} * AEQ_{BT=CT-a,a,f} \right)}{\sum_{f \in \{F\}} \sum_{a=Minage}^{Maxage} \left(BPISBMER_{f,a} * Cohort_{BT=CT-a,a} \right)} \qquad \text{Equation 2.15}$$

where,

$$BPISBMER_{f,a} = \frac{\sum_{BPER=79}^{82} \frac{\left(TotMorts_{BPER,f,a} * AEQ_{BT=BPER-a,a,f} \right)}{Cohort_{BT=BPER-a,a}}}{4} \qquad \text{Equation 2.16}$$

Direct application of the PSC Chinook salmon model alone or CWT data alone was not possible in the computation of all ISBM indices because some fisheries required a finer resolution than the CTC model currently provides or because some terminal fisheries target solely on marked

hatchery fish which makes the estimated CWT-based exploitation rate non-representative of the untagged stocks. In order to estimate total mortalities for some stocks and fisheries, the following stock specific methods were used:

1) For the terminal fisheries with marked exploitation rates that were not representative of the untagged stocks of interest, external estimates were used instead of the model estimates. For 2010, two preseason models, the Fisheries Resource Assessment Model (FRAM) and the Columbia River Harvest Model, were used to generate the external estimates for Puget Sound net and sport, and the Columbia River net and sport fisheries, respectively. For the CWT-based estimates, some indicator stocks did not have 1979 – 1982 base period recoveries. For these stocks, base period exploitation rates for the model stock associated with the wild stock were used, if available.

2) For 2010, many ISBM fisheries or stock/fishery combinations had no preseason predictions of exploitation and in some cases, no prediction of abundance. In those cases, the previous year exploitation rates were assumed.

3) In 1999-2009, external estimates of impacts in terminal ISBM fisheries were used to generate harvest-rate scalars (FPs for model generated estimates) or to modify estimated CWT recoveries (for CWT-based estimates) for many stocks. This was necessary because terminal impacts on some CWT exploitation rate indicator stocks were not representative of the fishery impacts on the untagged stock of interest.

4) For the CWT-based estimates, some indicator stocks did not have 1979 – 1982 base period recoveries. For these stocks, base period exploitation rates for the model stock associated with the wild stock were used, if available.

Table 2-6 and Table 2-7 show which model stock or, CWT exploitation rate indicator stock, was used to represent a wild stock. The tables also summarize the methods (if any) used to compute external estimates of total mortalities for the model stocks or to adjust the total mortalities derived from CWT data for exploitation rate indicator stocks for the computation of the ISBM indices.

Table 2-6. Methods for computing FPs input to the CTC Chinook Model to produce ISBM indices. See bullets above for stock specific methods.

Stock Group	Escapement Indicator Stock	Model Stock	Stock Specific Method 2010
Lower Strait of Georgia	Cowichan[1]	GST	2
	Nanaimo[1]		2
Fraser Late	Harrison	FRL	1, 2
North Puget Sound Natural Spring	Nooksack Spring	NKS	1, 2
	Skagit Spring		1, 2
Upper Strait of Georgia	Klinaklini Kakweikan Wakeman Kingcome Nimpkish	GSQ	Model defaults
Fraser Early (springs and summers)	Upper Fraser Mid Fraser Thompson	FRE	2
West Coast Vancouver Island Falls	Artlish Burman Kauok Tahsis Tashish Marble	RBT	2
Puget Sound Natural Summer/Falls	Skagit	SKG	1
	Stillaguamish	STL	1
	Snohomish	SNO	1
	Lake Washington	PSN	1
	Green River	PSN	1
North/Central BC	Yakoun Nass Skeena Area 8	NTH	Model defaults
Washington Coastal Fall Naturals	Hoko	WCN	2
	Grays Harbor		2
	Queets		2
	Hoh		2
	Quillayute		2
Columbia River Falls	Upriver Brights	URB	1
	Deschutes	URB	2
	Lewis	LRW	1
Columbia River Summers	Mid-Columbia Summers	SUM	2
Far North Migrating Oregon Coastal Falls	Nehalem	SRH	2
	Siletz		2
	Siuslaw		2

[1] Separate indices were computed for these stocks prior to 2005. The CTC identified inconsistencies with this method and chose to keep these two stocks aggregated in this analysis.

Table 2-7. Methods used to adjust CWT data for computation of the ISBM indices.

Stock Group	Escapement Indicator Stock	Exploitation Rate Indicator Stock	Stock Specific Method
Lower Strait of Georgia	Cowichan Nanaimo	Cowichan NC	4 NC
Fraser Late	Harrison	Chilliwack (Harrison Fall Stock)	Not needed
North Puget Sound Natural Spring	Nooksack Spring Skagit Spring	Nooksack Spring N/A	4 N/A
Upper Strait of Georgia	Klinaklini Kakweikan Wakeman Kingcome Nimpkish	Quinsam	Not needed
Fraser Early (springs and summers)	Upper Fraser Mid Fraser Thompson	N/A	N/A
West Coast Vancouver Island Falls	Artlish Burman Kauok Tahsis Tashish Marble	Robertson Creek	3
Puget Sound Natural Summer/Falls	Skagit Stillaguamish Snohomish Lake Washington Green River	N/A Stillaguamish Fall Fingerling N/A N/A South Puget Sound Fall Fingerlings	4 Not needed N/A N/A Not needed
North/Central BC	Yakoun Nass Skeena Area 8	N/A	N/A
Washington Coastal Fall Naturals	Hoko Grays Harbor Queets Hoh Quillayute	Queets Queets Queets Queets Queets	3 3 Not needed 3 3
Columbia River Falls	Upriver Brights Deschutes Lewis	Upriver Bright Upriver Bright Lewis River Wild	Not needed 3 Not needed
Columbia River Summers	Mid-Columbia Summers	Columbia Summers	Not needed
Far North Migrating Oregon Coastal Falls	Nehalem Siletz Siuslaw	Salmon River Hatchery Salmon River Hatchery Salmon River Hatchery	3 3 3

2.6 Assumptions of the CWT ERA Analyses

Assumptions used in the cohort analysis and other procedures used in the ERA are summarized below. Detailed discussions of assumptions and parameter values have been reported previously (CTC 1988). The analysis is necessary to calculate the fishery indices for the AABM fisheries and the non-ceiling index for the ISBM fisheries. The primary assumptions of the cohort analysis are:

1) CWT recovery data are obtained in a consistent manner from year to year or can be adjusted to make them comparable. Many of the analyses rely upon indices that are computed as the ratio of a statistic in a particular year to the value associated with a base period. Use of ratios may reduce or eliminate the effect of data biases that are consistent from year to year.

2) For ocean age 2 and older fish, natural mortality varies by age but is constant across years. Natural mortality rates applied by age are: age 2, 40%; age 3, 30%; age 4, 20%; and age 5 and older 10% (i.e., after fishing mortality and maturation of the age 4 cohort, 10% of the remaining immature fish die due to natural sources before becoming age 5 fish and before the commencement of fishing the next year).

3) All stocks within a fishery have the same size distribution for each age and the size distribution at age is constant among years.

4) The spatial and temporal catch distribution of sublegal-size fish of a given age from a stock is the same as legal-size fish of a given age of that stock.

5) Incidental mortality rates per encounter are constant between years. The rates vary by fish size (legal or sublegal) and fishery and are those published by the CTC (1997) for troll and sport fisheries. The rates used in CLB 1007 are listed in Appendix M.

6) The procedures for estimating the mortality of CWT fish of legal size during periods of Chinook non-retention (CNR) assume that the stock distribution in any year remains unchanged from the period of legal catch retention in the same year. However, gear and/or area restrictions during CNR fisheries are believed to reduce the number of encounters of legal-size fish. To account for this, the number of legal encounters during the CNR fishery was adjusted by a selectivity factor. A factor of 0.34 was used for the WCVI and Strait of Georgia (GS) troll fisheries. This value was the average selectivity factor calculated from 3 years of observer data in the Alaska troll fishery. A factor of 0.20 was used in the North Central British Columbia (NCBC) troll fishery. This factor corresponds to the proportion of fishing areas that remain open during non-retention periods. A selectivity factor was not required for the SEAK troll fishery since an independent estimate of legal and sublegal encounters has been provided annually.

7) Maturation rates for brood years in which all ages have not matured (incomplete broods) are equal to the average of completed brood years. Maturation rates are stock specific.

8) Recoveries of age 4 (age 5 for spring stocks) and older Chinook salmon in ocean net fisheries are assumed to be mature fish (ocean terminal catches).

9) In addition, when using the fishery indices as a measure of the change in fishery harvest rates between years, the temporal and spatial distribution of stocks in and among fisheries and years is assumed to be stable.

For AABM fisheries, the fishery indices are presented for both reported catch (same as landed catch) and total mortality; only total mortality indices are presented for the ISBM fisheries. The difference between reported catch and total mortality is incidental mortality, which includes the mortality of legal-size fish in CNR fisheries and the mortality of sublegal-size fish in both retention and CNR fisheries. Management strategies have changed considerably for fisheries of interest to the PSC since 1985. Regulatory changes have included size limit changes, extended periods of CNR in troll fisheries, and mandatory release of Chinook caught in some net fisheries. Estimates of incidental mortality are crucial for assessment of total fishery impacts, yet they cannot be determined directly from CWT recovery data. There are four categories of incidental mortality that are estimated in the Chinook model and the CWT cohort analysis. Legal and sublegal fishery specific mortality rates are applied to the following types of Chinook encounters:

1) Shakers: Chinook below the legal size limit that are encountered, brought to the boat, and released during a Chinook retention fishery.
2) Sublegal CNR: Chinook below the legal size limit that are encountered, brought to the boat, and released during a Chinook non-retention fishery. The mortality rate per encounter applied to sublegal CNR is the same applied to shakers.
3) Legal CNR: Chinook above the legal size limit that are encountered, brought to the boat, and released during a Chinook non-retention fishery.
4) Drop-off: Chinook above or below the legal size limit that are encountered, but are lost from the gear before they reach the boat during either retention or non-retention fisheries. Drop-off mortality is assumed the same for legal and sublegal fish, but can vary by gear type.

There are several methods used to estimate the number of CNR mortalities in the model and the CWT cohort analysis. The 'season length' method uses the relative length of the Chinook retention and non-retention periods. This is usually expressed in days or boat-days. In a related method, direct estimates of CNR encounters provided by the agencies are related to the size of the landed catch. The CWT cohort analysis can also use a method based on catchability coefficients where no associated Chinook retention period exists for the fishery. The 'season length' method used in the exploitation rate assessment was described in CTC (1988). The Chinook model also can also use a method, known as the 'RT' method, based on the difference between the base period and the current year exploitation rates, and current cohort sizes. In both the season length and RT methods, the stock composition of the legal CNR encounters is assumed to be the same as the stock composition of the legal catch. The stock composition of the shakers and sublegal CNR encounters is estimated using the non-vulnerable portions of the cohorts for stocks that contribute to the landed catch. The procedures used to estimate incidental mortality in the Chinook model have been described by the CTC AWG (1991) and CTC (2004).

For some fisheries or years, CWT recoveries are either lacking or cannot be used in certain analyses of this exploitation rate assessment. In some of these situations the model can be used for ER assessment.

2.7 Results of ERA (Appendix C, D and E):

The purpose of the Exploitation Rate Analysis (ERA) is to estimate post-season how stocks and fisheries perform across the various AABM and ISBM fisheries. To this effect, we report numerous statistics by region and stock that are assembled in Appendix C through E. Appendix C summarizes tag distributions for each stock by year and region (specifically AABM and ISBM fisheries) and escapement. Appendix D is summarizing survival by stock using indexed survival from the tags and comparing them to associated model stocks. Summaries of how these two relate are reported with a correlation coefficient in each of these graphs. Finally Appendix E summarizes the exploitation rate for complete broods for pre-terminal and terminal fisheries by stock.

3 MODEL CALIBRATION AND OUTPUT

3.1 Model Calibration

This section describes the calibration data and procedures. For reference, a list of stocks and fisheries in the model is provided in Appendix A. Estimation of the model base period parameters is discussed in detail in the model documentation (CTC AWG 1991). For 2010, the model used was the same as used during the Pacific Salmon Treaty negotiations (CLB 9812), but with the exception that the actual catches, escapements, and other data through 2009 were added. In addition, CTC-accepted escapement goals were used where available and the form of the Ricker production function was adjusted for those stocks with newly accepted goals (e.g. Harrison River fall Chinook).

3.1.1 Calibration Data

The first step in the annual calibration process is to gather new or revised data and update the appropriate model input files. The frequency of updates depends on the frequency of data changes made by the reporting agencies, the magnitude of the change, and the significance of the change to the current model application. For example, the file containing run size data is updated as preseason forecasts and postseason estimates become available since model predictions are sensitive to preseason forecasts and postseason estimates of terminal runs. Months in which forecasts are made for each stock, and the month the final return estimate becomes available, are presented in Table 3-1.

The model is recalibrated annually to incorporate observed data from the previous year and available abundance forecasts for next year. In addition, recalibration may also occur when significant changes in one or more of the following model input files are made.

BSE (base). This file contains basic information describing the structure of the model, including, but not limited to, the number of stocks, age classes and fisheries, the names of fisheries and the proportion of each age class that was not vulnerable to the gear during the base period, identification of terminal fisheries, stock names and production parameters. This file may be modified annually to incorporate productivity parameters that correspond to new CTC agreed escapement goals.

CEI (ceiling). This file contains historical catch data for the 19 fisheries (both AABM and ISBM) that are modeled as ceiling or catch quota fisheries (as opposed to fisheries modeled solely through control of exploitation rates) through the most recent fishing season.

CNR (Chinook non-retention). Data used by the model to estimate mortalities during CNR periods are read from the CNR file. The data in the CNR file depends on which method is used to calculate CNR mortality. It may include direct estimates of encounters during the CNR period or indicators of fishing effort in the CNR period relative to the retention period.

Table 3-1. Months when final return estimates are available for the previous year and preseason forecasts of abundance are available for the next fishing year from agencies.

Model Stock	Month Final Return Estimate Available	Month(s) Forecast Available
Alaska South SE	January	None
North/Central BC	November	None
WCVI Natural	January	February
WCVI Hatchery	January	February
Upper Strait of Georgia	January	None
Lower Strait of Georgia Hatchery	December	None
Lower Strait of Georgia Natural	December	None
Fraser Early	January	None
Fraser Late	February	February
Nooksack Spring	June	Not Used
Nooksack Fall (Samish)	June	February
Snohomish Wild	June	February
Skagit Wild	June	February
Puget Sound Natural Fingerling	June	February
Stillaguamish Wild	June	February
Puget Sound Hatchery Fingerling	June	February
Puget Sound Hatchery Yearling	June	February
Washington Coastal Wild	June	None
Washington Coastal Hatchery	June	None
Cowlitz Spring Hatchery	June	December
Willamette River Hatchery	June	December
Columbia River Summer	September	March
Fall Cowlitz Hatchery	April	February, April[1]
Spring Creek Hatchery	April	February, April
Lower Bonneville Hatchery	April	February, April
Upriver Brights	April	February, April
Snake River Wild Fall	April	April
Mid-Columbia River Bright	April	February, April
Lewis River Wild	April	February, April
Oregon Coast	February	February

[1]A preliminary ocean escapement forecast is released in February. An updated ocean escapement forecast reflecting the ocean fishery option adopted by PFMC is released in April.

ENH (enhancement file). This file contains productivity parameters and smolt production for 13 hatchery stocks and one natural stock (Lower Georgia Strait Naturals) with supplementation. Smolt production is expressed as the deviation from the average production during the model base period; as a result, values in the ENH file can be negative if releases in a given year are less

than the average reported for the model base period. Additional discussion of the productivity parameters may be found in the model documentation (CTC AWG 1991).

FCS (forecast). Estimates of terminal run sizes or escapements and agency supplied preseason forecasts are included in the FCS file. Age-specific information is used for those stocks and years with age data (Table 3-2).

FP (fishery policy). This file contains scalars that are specific to year, fishery, stock and age that are applied to base period fishery exploitation rates. The FPs are used to scale fishery exploitation rates relative to the model base period and can be used for a variety of purposes. For example, in the ocean areas off the Washington and Oregon North of Cape Falcon (WA/OR) troll fishery, the FPs are used to model the differential impacts on Columbia River and Puget Sound stocks as the proportion of the catch occurring in the Strait of Juan de Fuca varies. The source of the FPs is generally the reported catch fishery index computed from CWT data in the annual exploitation rate analysis or the ratios of harvest rates computed from terminal area run reconstructions.

IDL (interdam loss). The IDL file contains stock-specific conversion factors for the Columbia River Summer, Columbia Upriver Bright, Spring Creek Tule, and Snake River Fall stocks provided each year by Columbia River fishery managers. The factors represent the fraction of the stock that can be accounted for after mainstem dam passage in the Columbia River; losses can be attributed to direct mortality at the various dams, mortality in the reservoirs between dams, fall-backs, tailrace spawning, and other factors. The interdam loss factor is equal to one minus the conversion factor.

IM (changes in incidental mortality rates). The IM file contains the incidental mortality rates by fishery for legal and sublegal fish that differ from those used in the base period due to alterations in gear, regulations, or fishery conduct.

MAT (maturity and adult equivalent factors). The MAT file has annual estimates of maturation rates and adult equivalent factors for 11 stocks (AKS, BON, CWF, FRL, GSH, NKW, ORC, RBH, RBT, SPR, URB, and WSH). These estimates replace the base period rates in the BSE file. The annual estimates are obtained from the annual exploitation rate analysis. The average value is used for years beyond the last year for which estimates are available (due to incomplete broods and the one year lag for completion of the annual exploitation rate analysis).

PNV (proportion non-vulnerable). A PNV file is created for each fishery for which a size limit change has occurred since the model base period. Each file contains age-specific estimates of the proportion of fish not vulnerable to the fishing gear or smaller in length than the minimum size limit. The PNVs were estimated from empirical size distribution data; in some instances independent surveys of encounter rates were used to adjust the PNV for age 2 fish to account for the proportion of the cohort that was not vulnerable to the fishing gear.

STK (stock). This file contains the stock and age-specific starting (base period) cohort sizes, the base period exploitation rates on the vulnerable cohort for each model fishery, maturation schedules, and adult equivalent factors. This file is updated if new stocks or fisheries are added, new CWT codes are used to represent distribution patterns of existing model stocks, or a re-

estimation of base period data occurs. Modification of this file will result in a model different from that used in the negotiations (CLB 9812).

The calibration is controlled through a file designated with an OP7 extension.

Table 3-2. Methods used to forecast the abundance of stocks in the PSC Chinook Model. Externally provided forecast type codes are S = sibling; R = return rate; C = model internally estimated projection.

Model Stock	Forecast Characteristics			Comments
	Forecast Type	Preseason Age-specific	Postseason Age-specific	
Alaska South SE	C	-	Yes	Calibrated to escapement
North/Central BC	C	-	No	Calibrated to terminal run
WCVI Hatchery + Natural (RBH and RBT model stocks)	S	Yes	Yes	Robertson Creek Hatchery forecasts plus expansion for other WCVI stocks based on ratio of terminal run sizes
Upper Strait of Georgia	C	-	Partial	Calibrated to escapement
Lower Strait of Georgia Hatchery	C	-	Yes	Calibrated to escapement to GSH hatchery systems and Squamish River
Lower Strait of Georgia Natural	C	-	Yes	Calibrated to escapement to Cowichan and Nanaimo Rivers
Fraser Early	C	-	No	Calibrated to terminal run
Fraser Late	S	Yes	Yes	Combined forecasts for Harrison River and Chilliwack Hatchery
Nooksack Spring	C	Partial	No	No data since 1987
Nooksack Fall (Samish)	R	No	No	2001-2002 return rate
Snohomish Wild	R	No	No	Recruits per Spawner
Skagit Wild	S	Yes	Yes	Cohort return rate
Puget Sound Natural Fingerling	R	No	No	Calibrated to terminal run
Stillaguamish Wild	R	No	No	Recruits per Spawner
Puget Sound Hatchery Fingerling + Yearling	R	No	No	Age-specific forecasts not available for all components
Washington Coastal Wild	R	No	No	Calibrated to terminal run
Washington Coastal Hatchery	C	No	No	Calibrated to terminal run
Cowlitz Spring Hatchery	S	Yes	Yes	Prediction is to mouth of tributary streams
Willamette River Hatchery	S	Yes	Yes	Prediction is to mouth of Willamette River
Columbia River Summer	S	No	No	Changed in 2001 to 5-year average
Spring Creek Hatchery	S	Yes	Yes	Run reconstruction used to estimate Columbia River mouth return
Lower Bonneville Hatchery	S	Yes	Yes	Run reconstruction used to estimate Columbia River mouth return
Upriver Brights	S	Yes	Yes	Run reconstruction used to estimate Columbia River mouth return
Snake River Wild Fall	C	-	No	Calibrated to escapement to Lower Granite External forecast is sometimes available
Mid-Columbia River Bright	S	Yes	Yes	Run reconstruction used to estimate Columbia River mouth return
Lewis River Wild	S	Yes	Yes	Run reconstruction used to estimate Columbia River mouth return
Oregon Coast	S	Yes	Yes	Weighted average age composition from four index rivers

3.1.2 Calibration Procedures

The objective of the calibration is to estimate stock and brood year specific environmental variant (EV) scalars. The calibration uses an iterative algorithm to estimate the EV scalars for each brood year and model stock to account for annual variability in natural mortality in the initial year of ocean residence. EV scalars are applied to production resulting from brood year escapements and the base period spawner-recruit function to produce the age 1 abundance by stock. Fishing impacts and natural mortalities are then applied through model processes. EVs also adjust for biases resulting from errors in the data or assumptions used to estimate the base period parameters for the spawner-recruit function.

EVs are estimated through the following steps for stocks calibrated to age-specific terminal run sizes:

(1) Predicted terminal runs are computed for each year using the input files discussed above and with values of all stock productivity scalars (EVs set equal to 1).

(2) The ratio of the observed terminal run and model predicted terminal run (SC_{BY}) is computed for each brood year. For example, if the estimated and model predicted terminal runs for the 1979 brood were 900 and 1,500 age 3 fish in 1982, 4,000 and 4,500 age 4 fish in 1983, and 1,000 and 1,500 age 5 fish in 1983, the ratio would be computed as:

$$SC_{BY} = \frac{\sum_{a=Minage}^{Maxage} (ObservedTerminalRun)_a}{\sum_{a=Minage}^{Maxage} (ModelPredictedTerminalRun)_a} \qquad \text{Equation 3.1}$$

$$SC_{BY} = \frac{900+4000+1000}{1500+4500+1500} \qquad \text{Equation 3.2}$$

In the absence of age-specific estimates of the terminal run, the components are computed by multiplying the total terminal run by the model predictions of age composition.

(3) The EV for iteration n and brood year BY is computed as:

$$EV_{n,BY} = EV_{n-1,BY} * SC_{BY} \qquad \text{Equation 3.3}$$

(4) Steps 1–3 are repeated until the absolute change in the EVs for all stocks is less than a predetermined tolerance level (currently set at 0.05). This value could be changed if required depending on the coarseness needed for resolution.

$$\left|\frac{EV_{n,BY} - EV_{n-1,BY}}{EV_{n-1}}\right| < 0.05 \qquad \text{Equation 3.4}$$

Several options for the calibration are provided in the OP7 control file. The options include the ability to control the brood years for which the EVs are estimated in each iteration and also the type of convergence criteria. For the 2005 calibration, EVs were estimated for all brood years in each iteration. Convergence was defined to occur when the absolute value of the difference in EVs between successive iterations did not exceed 0.05.

Stock-specific calibration options are specified in the FCS file and discussed below:

Minimum Number of Age Classes. Data for all age classes will not be available when the EVs are estimated for recent broods. Since considerable uncertainty may exist in a single data point, application of the calibration algorithm can be restricted to cases in which a specific minimum number of age classes are present.

Minimum Age. Considerable uncertainty often exists in the estimates of terminal runs or escapements for younger age classes, particularly age 2. The minimum age class to include in the calibration algorithm is specified in the FCS file.

Estimation of Age Composition. Age-specific estimates of the terminal run or escapement may not be available. An option is provided to estimate the age composition using base period maturation and exploitation rates.

The forecasts provided by the management agencies typically represent terminal runs or escapements without adjustments for changes in ocean fisheries. Since the forecasts implicitly include exploitation in pre-terminal fisheries, the expansion of the forecasts to total cohort size should be made using the average exploitation rate for the period of years in the forecast database.

The 2010 calibration was completed in two stages to facilitate computation of the average exploitation rates and incorporation of the agency forecasts. The Stage 1 calibration provided initial estimates of exploitation rate scalars for fishing years 1979 through 2009 using updated catch and escapement data through 2009. Average exploitation rate scalars ($\overline{FP}$) were then computed and used as input values for 2009 fisheries in the Stage 2 calibration, except for the WCVI and Fraser Late (FRL) stocks whose forecasts already account for changes in the ocean fisheries.

The $\overline{FP}$ s for each model fishery were obtained from the Stage 1 calibration using the following formula:

$$\overline{FP}_{a,s,CY,f} = \frac{\sum_{CY=CY_{start}}^{CY_{end}} RT_{CY} * FP_{s,a,CY,f}}{(CY_{end} - CY_{start})} \qquad \text{Equation 3.5}$$

The range of years used to compute the average FP varied between stocks and was fishery and age-specific. The input files used in the Stage 2 calibration were identical to those used in Stage 1 with two exceptions:

(1) the average exploitation rate scale factors for each fishery were inserted into the FP file for 2010; and
(2) the Stage 1 EVs were used as starting values for the Stage 2 calibration.

To determine the acceptability of a calibration by the CTC (i.e., whether an annual calibration is deemed final by the CTC), several results are examined:

(1) accuracy of the reconstructed catches in the fisheries (these values will consistently differ from the actual catches if the calibration is not able to recreate exactly the actual catches in the years 1979 through 1984, the model years used prior to implementation of the ceiling algorithm);
(2) accuracy of model predicted terminal runs or escapements relative to the data used for calibration of each stock;
(3) comparison of model predicted age structure in terminal runs or escapements with data used for calibration (consistent biases in age structure are addressed by changing maturation rates);
(4) patterns in the EVs compared with marine survival patterns generated by the annual exploitation rate analysis;
(5) comparison of CWT and model estimates of fishery harvest rate indices ;
(6) comparison of model estimates of mortality distributions for individual stocks to those generated from the annual CWT-based exploitation rate analysis; and
(7) comparison of model estimated AIs with those AIs estimated by model CLB 9812.

Calibration usually involves an iterative process until a judgment is made by the CTC that an acceptable fit to all the data was achieved. This decision usually involves an inspection and trial-and-error process. The determination of whether or not further calibrations are necessary is based principally on the significance of deviations from observed or estimated values for stocks and fisheries most relevant to the issues to be evaluated and on the time constraints established for completion of the calibration.

3.2 Model Calibration Evaluation

Previous reports included evaluations of model performance for the most current model year, including comparisons of model estimates of catch and escapement/terminal run sizes to actual estimates of catch and escapement/terminal run size. This year, the model catches and stock escapements or terminal run sizes estimated by CLB 1007 were evaluated along with other aspects of the calibration. The calibration was distributed to the CTC membership for review and subsequently approved. Correlations between model and CWT fishery indices are normally conducted, however while these comparisons were made as part of the normal calibration checking process, the results are not presented in this report.

Fishery mortality indices generated by CLB 1007 can be compared to the CWT-based exploitation rate analysis. Model and CWT-based fishery mortality indices use the same equation, but the former are derived from model estimates of catch for all model stocks instead of CWT recovery data from specific exploitation rate indicator stocks. The CWT fishery mortality indices are considered the most accurate. Two fishery indices are presented; reported catch and total mortality estimated using two methods. The first method is a ratio of means (ROM) and the second is the stratified proportional fishery index (SPFI; CTC 2005). In general, the model results are closely associated with the CWT-based indices and changes in fishery exploitation rates.

The SEAK fishery mortality index from the model closely follows the trend of the CWT derived estimate from 1979 through 1989 for both landed catch and total mortality (Figure 3-1 and Figure 3-2). Between 1989 and 2000, the model estimate of both landed catch and total mortality indices is less than the CWT-derived estimate for most years but since 2001, the model estimate is higher. Since 1990, the model estimates also show less variability compared to the CWT-derived indices.

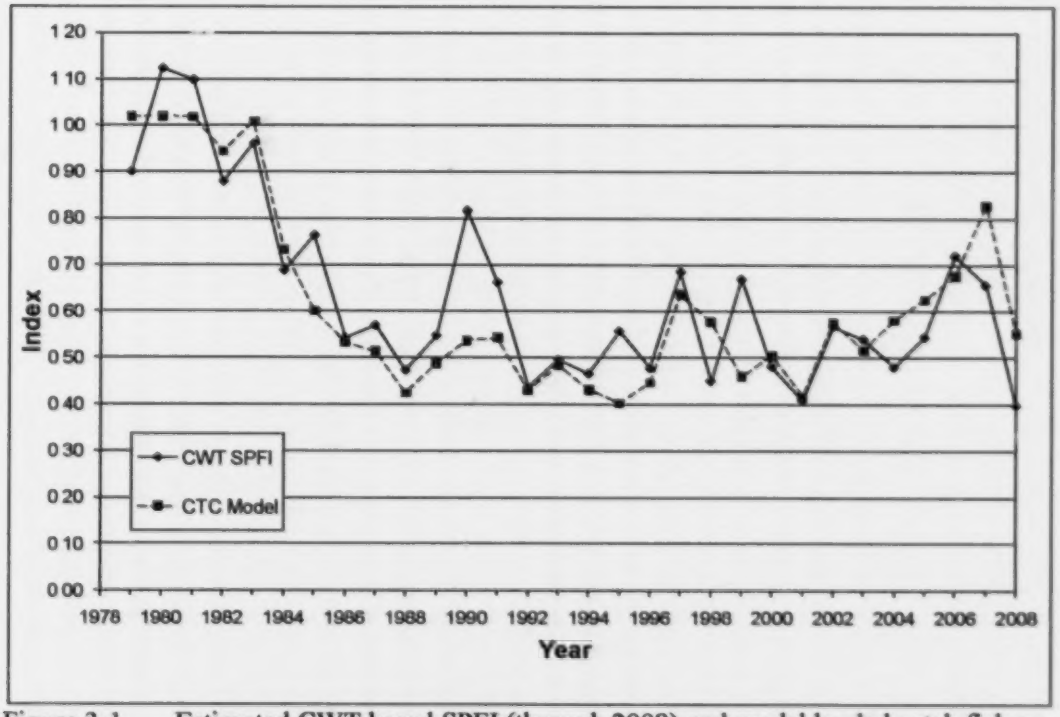

Figure 3-1. Estimated CWT based SPFI (through 2008) and model landed catch fishery indices (through 2008) for the SEAK troll fishery

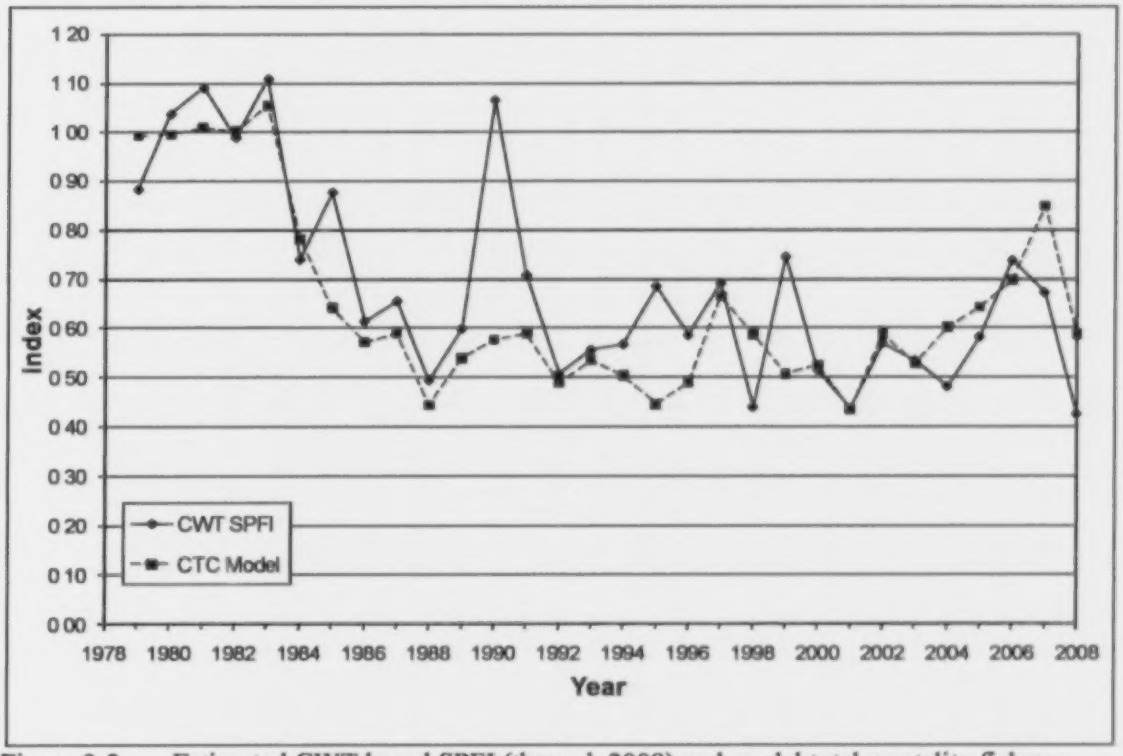

Figure 3-2. Estimated CWT based SPFI (through 2008) and model total mortality fishery indices (through 2008) for the SEAK troll fishery.

3.2.1 SPFI developed for NBC and WCVI AABM Fisheries

Based on the results that came out of the Harvest Rate Index Analysis in 2009 (CTC 2009), a recommendation was made to use the SPFI estimator for the fishery index in all AABM fisheries. As a result, the CTC created the SPFI for WCVI and NBC fisheries and compared them to the model and CWT based ROM estimator of the fishery index for each of the fisheries analyzed (Figure 3-3 through Figure 3-6). It should be noted that the intent of assessing how the SPFI effects results in the calibration procedures was intended to be assessed, this has been deferred to the next evaluation. The CTC_AWG will assess the use of the SPFI in the 2011 calibration as well.

The model-derived fishery mortality indices for NBC generally follow the same trend as CWT-derived indices (Figure 3-3 and Figure 3-4). However, since 1991, the model-based estimates have exceeded the CWT-derived estimates in all but three years for both landed catch and total mortality indices. Since 2001, this difference has been noticeably large.

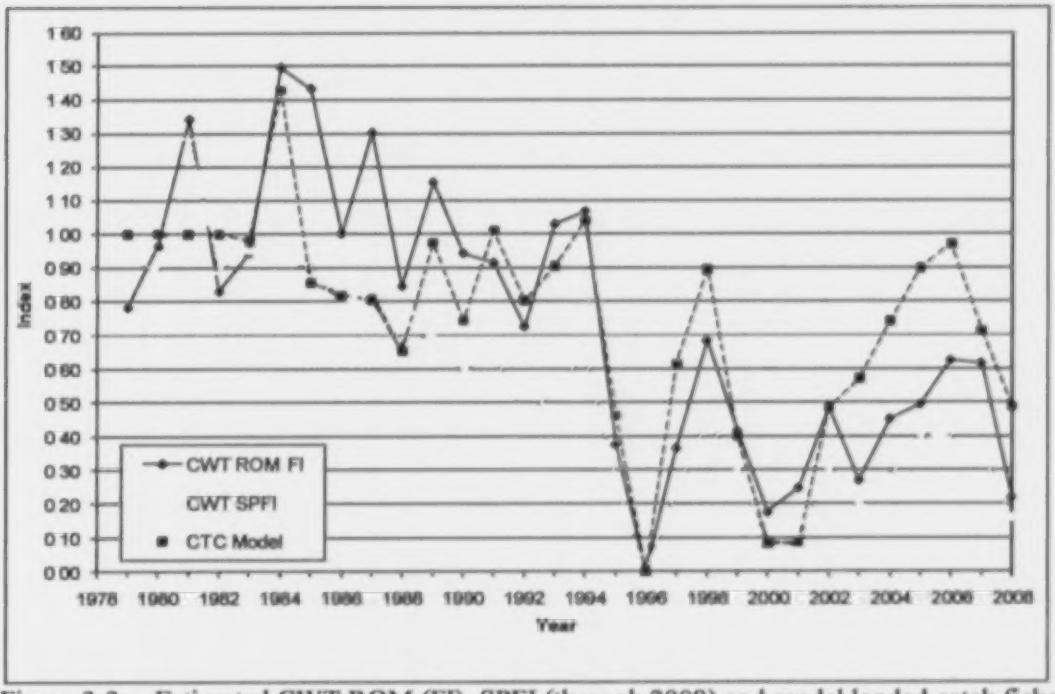

Figure 3-3. Estimated CWT ROM (FI), SPFI (through 2008) and model landed catch fishery indices (through 2008) for the NBC troll fishery.

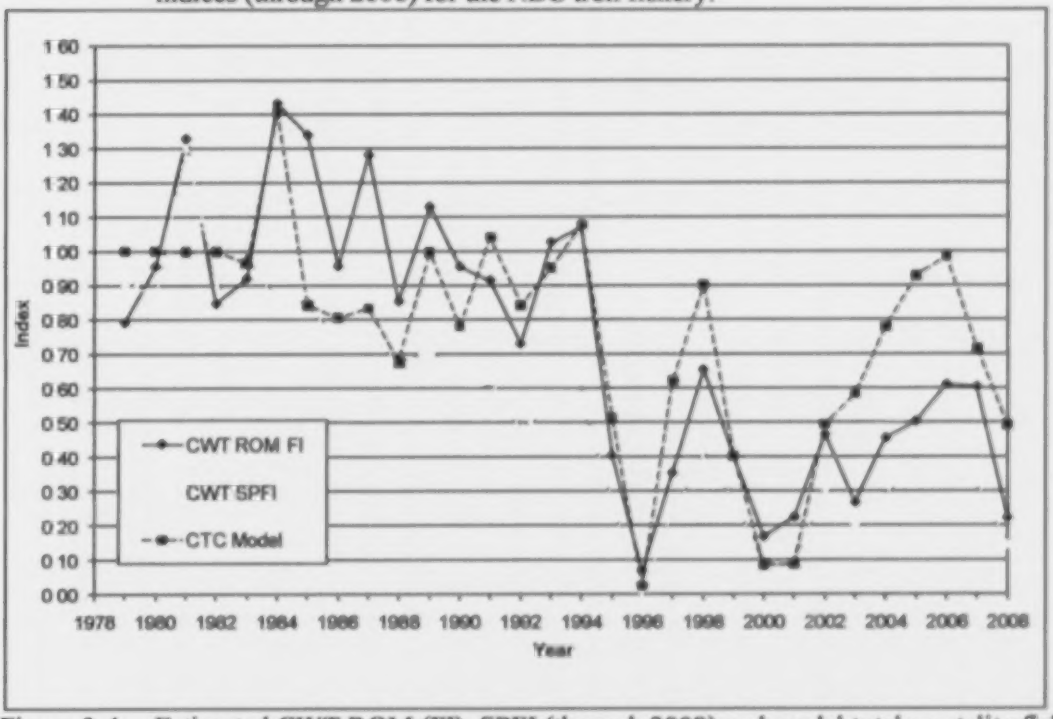

Figure 3-4. Estimated CWT ROM (FI), SPFI (through 2008) and model total mortality fishery indices (through 2008) for the NBC troll fishery.

Since the base period, the model-derived landed catch fishery index estimates and trends for the WCVI troll fishery have been similar to CWT based ROM FI estimates (Figure 3-5 and Figure 3-6). Starting in 2000, model and CWT based ROM estimates have diverged significantly for both landed catch and total mortality, with the CWT indices being consistently higher than model indices. To adjust for this the SPFI was developed that captures temporal and spatial changes in the fishery, and is now reported along with the ROM FI (Figure 3-5 and Figure 3-6).

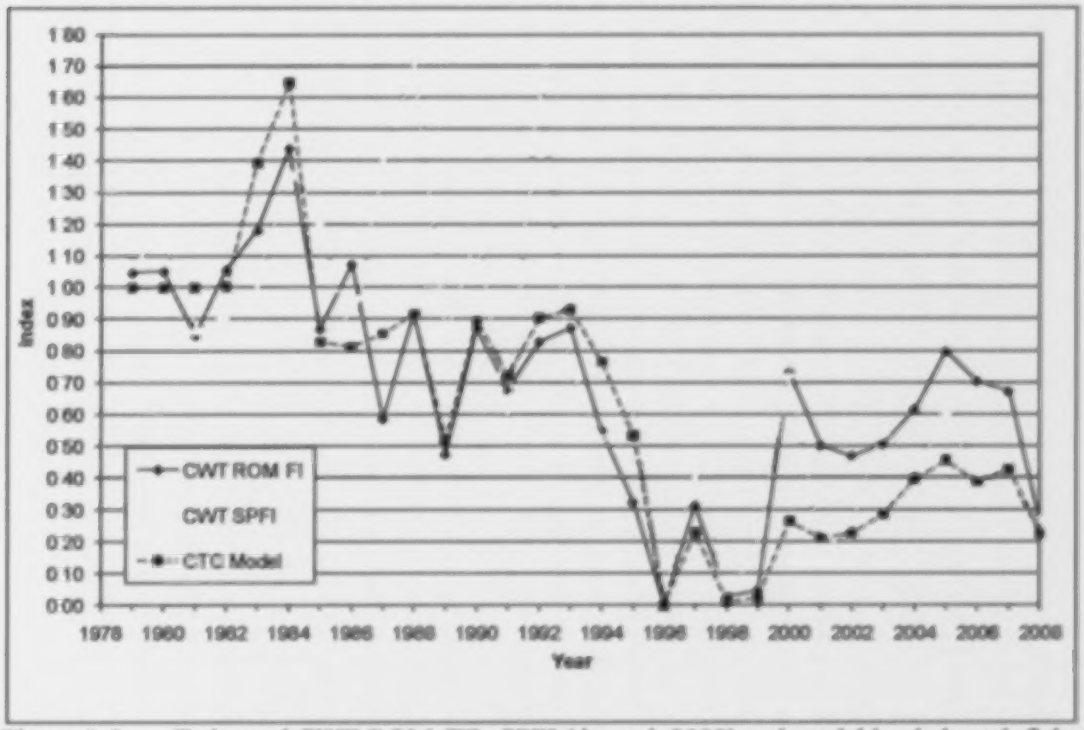

Figure 3-5. Estimated CWT ROM (FI), SPFI (through 2008) and model landed catch fishery indices (through 2008) for the WCVI troll fishery.

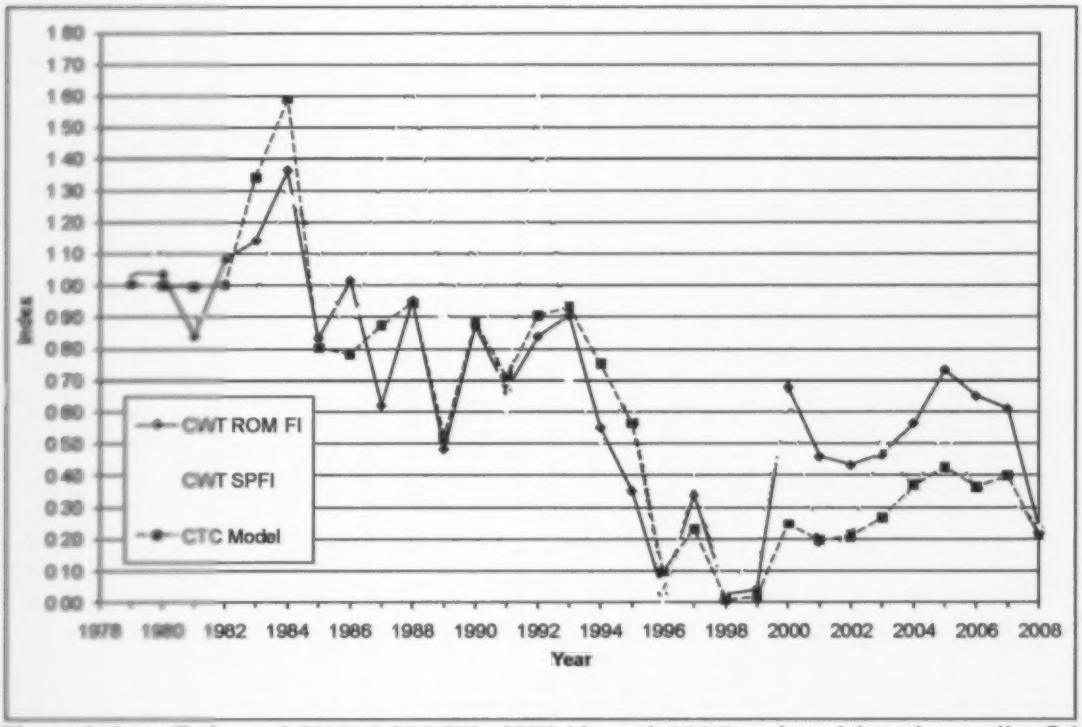

Figure 3-6. Estimated CWT ROM (FI), SPFI (through 2008) and model total mortality fishery indices (through 2008) for the WCVI troll fishery.

3.3 AABM Abundance Indices and Associated Catches

Beginning with the 1999 fishing season, the PST specified that the AABM fisheries are to be managed through the use of the preseason AIs, where specific allowable harvest corresponds to a given AI for each fishery. The preseason AIs that were used to establish harvest management targets are listed in Table 3-3. The 2010 preseason AI for the SEAK troll fishery is 1.35, for the NBC troll fishery it is 1.17, and for the WCVI troll fishery is 0.96. This is the second year of the new annex to the Pacific Salmon treaty that adjusts for a drop in catches and associated harvest rates in Southeast Alaska, and West Coast of Vancouver island AABM fisheries in response to conservation concerns coast wide. The NBC AABM fishery remained at the same allowable catch and harvest rates as the previous annex. In-season predictors may also be used for in-season adjustments to the preseason AI's for the SEAK troll fishery. However, the in-season AI is highly influenced by the pre-season AI and has not provided a reliable estimate of the postseason AI. Therefore it has not been used in SEAK since 2001

The postseason AI is considered a more accurate estimate of the abundance index for the AABM fisheries, and is used to compute a final allowable catch for each fishery to evaluate overage or underage of the landed catch relative to the harvest objective. Postseason AIs for 1999-2009 are also listed in Table 3-3.

Table 3-3 Abundance indices (AI) for 1999 to 2010 for the SEAK, NBC, and WCVI troll fisheries.

	SEAK		NBC		WCVI	
Year	**Preseason**	**Postseason**	**Preseason**	**Postseason**	**Preseason**	**Postseason**
1999	1.15	1.12	1.12	0.97	0.60	0.50
2000	1.14	1.10	1.00	0.95	0.54	0.47
2001	1.14	1.29	1.02	1.22	0.66	0.68
2002	1.74	1.82	1.45	1.63	0.95	0.92
2003	1.79	2.17	1.48	1.90	0.85	1.10
2004	1.88	2.06	1.67	1.83	0.90	0.98
2005	2.05	1.90	1.69	1.65	0.88	0.84
2006	1.69	1.73	1.53	1.50	0.75	0.68
2007	1.60	1.34	1.35	1.10	0.67	0.57
2008	1.07	1.01	0.96	0.93	0.76	0.64
2009	1.33	1.20	1.10	1.07	0.72	0.61
2010	1.35		1.17		0.96	

The 2008 PSC Agreement specifies the allowable catch for various values of the AI for each fishery. Catches for 1999-2008 were from Table 1 in the Chinook Annex to the 1999 PSC Agreement. In the 2008 PSC Agreement, the relationship between the AI and the allowable catch changed for SEAK and WCVI; thus the allowable catches for 2009 were derived from Table 1 of the Chinook Annex to the 2008 PSC Agreement. The allowable treaty catch by fishery and year based on pre- and postseason AIs and the actual (observed) catches are given in Table 3-4.

Table 3-4 Observed catches and postseason allowable catches for 1999 to 2009, and preseason allowable catches for 1999 to 2010, for AABM fisheries.

PST Treaty Allowable and Observed Catches									
	SEAK (T, N, S) [1]			NBC (T, S)			WCVI (T, S)		
Year	**Pre-season Allowable Catch**	**Post-season Allowable Catch**	**Observed Catch**	**Pre-season Allowable Catch**	**Post-season Allowable Catch**	**Observed Catch**	**Pre-season Allowable Catch**	**Post-season Allowable Catch**	**Observed Catch**
1999	192,800	184,200	198,842	145,600	126,100	86,726	128,300	107,000	36,413
2000	189,900	178,500	186,493	130,000	123,500	31,900	115,500	86,200	101,438
2001	189,900	250,300	186,919	132,600	158,900	43,500	141,200	145,500	117,670
2002	356,500	371,900	357,133	192,700	237,800	150,137	203,200	196,800	165,036
2003	366,100	439,600	379,519	197,100	277,200	191,657	181,800	268,900	175,821
2004	383,500	418,300	417,019 421,666 [2]	243,600	267,000	241,508	192,500	209,600	216,624
2005	416,400	387,400	387,749	246,600	240,700	243,606	188,200	179,700	202,662
2006	346,800	354,500	358,601	223,200	200,000	215,985	160,400	145,500	146,883
2007	329,400	259,200	328,419	178,000	143,000	144,235	143,300	121,900	139,150
2008	170,000	152,800	172,322	124,800	120,900	95,647	162,600	136,900	145,726
2009	218,800	176,000	241,451	143,800	139,100	109,470	107,800	91,300	124,617
2010	221,800			152,100			143,700		

[1] Nomenclature is T for troll, N for net, and S for sport.

[2] The lower value resulted from subtracting a disputed terminal exclusion catch for the Stikine River in 2004. Catch accounting has since been defined in the Transboundary Agreement.

3.3.1 Explanation of the change from the preseason AI to postseason AI

Chinook Model calibration 1007 resulted in a postseason decrease of the 2009 preseason AIs for all three AABM fisheries (see Table 3-3 and Table 3-4). The change relative to the preseason forecast was greater than typical for the SEAK and WCVI AABMs (9.8% and 15.3%, respectively) though small for the NCBC AABM (2.7%). Due to the location of break points in the step function underlying the AI to total allowable catch (TAC) relationship for SEAK, the decrease in the postseason assessment of the TAC was 19.6% instead of 9.8%. Taken together, these postseason changes indicated a noteworthy decrease in the estimated overall abundance of Chinook available to fisheries in 2009 and were sufficiently unusual as to warrant investigation.

Most of the change can be attributed to the fact that for the 22 stocks with agency-provided terminal run or escapement forecasts, the total adult return for 20 of them was less than the preseason forecast. The lower-than-expected returns were not confined to any particular region. The difference between the forecast and actual return in some cases was substantial both in terms of the percentage change relative to the forecast and in actual numbers of fish. The agency-provided forecasts are a key input to the Chinook Model and while it is understood that they have an associated average error, rarely does such a high proportion err in the same direction.

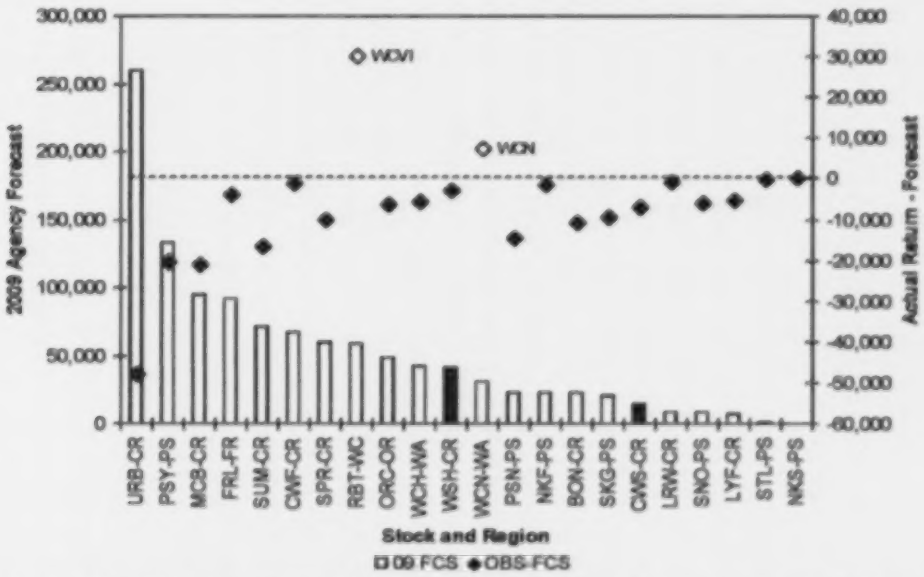

Figure 3-7. The 2009 agency-provided forecasts of total adults used as input to Chinook Model calibration 0907 (09 FCS bars at the left y-axis scale) and the difference between the actual return and preseason forecast (OBS-FCS diamonds at the right y-axis scale). Bar labels below the x-axis consist of a three-letter acronym for each stock (or stock aggregate) followed by a dash and two letters for the region of origin. Black bars indicate those stocks (2) with a stream-type juvenile life history; grey bars indicate an ocean-type juvenile life history. The horizontal dashed line at 0 indicates no difference between the forecast and actual return. Negative values indicate that the observed return was less than the forecast.

The fact that the majority of the actual returns were below the forecasts suggests a common effect most likely experienced in the ocean environment. Age-specific forecasts are available for 11 of the 22 stocks with preseason forecasts. Examination of the change in specific age classes of adults present in the forecast relative to the actual return indicates that fish entering the ocean as smolts in 2005 and 2006 (4 and 5 year olds for ocean-type Chinook and 5 and 6 year olds for stream-type Chinook) mostly returned below forecast (Figure 3-8). Fish entering the ocean as smolts in 2007 (3 year olds for ocean-type Chinook and 4 year olds for stream-type Chinook) more often returned above forecast. While not proof of a cause and effect, it appears that the ocean environment was less favorable to smolt survival in 2005 and 2006 and more favorable in 2007.

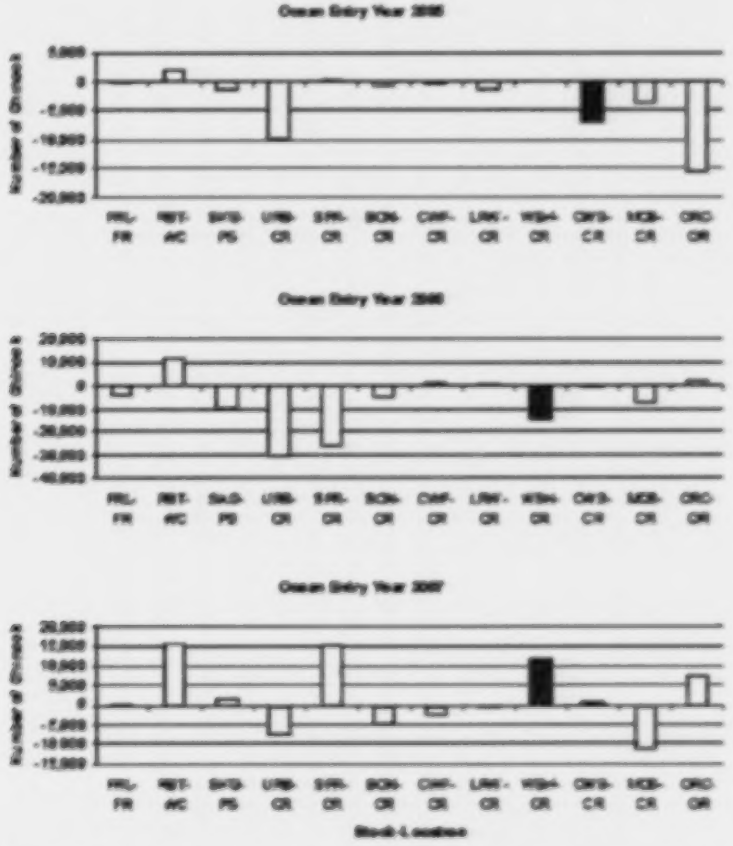

Figure 3-8. Difference in number of Chinook between the 2009 age-specific preseason forecast provided by agencies and the actual return. Each adult age class is related to the year of ocean entry by the smolts. Stock and region bar labels are the same as in Figure 3-7 for 12 stocks with age-specific forecasts. Bars falling below 0 on the y-axis indicate a decrease in the actual return compared to the forecast. Black and grey bars indicate, respectively, a stream-type or an ocean-type juvenile life history

Despite the decreases in 2009 vulnerable cohort abundance estimated postseason from Chinook Model calibration 1007 for each of the three AABM fisheries, the same calibration forecasted

notable increases in the vulnerable AABM cohort abundances for 2010. These result in corresponding increases of 26.1%, 9.3% and 57.4% in the TACs for the SEAK, NBC and the WCVI AABM fisheries, respectively, relative to the 2009 postseason TACs. Many kinds of inputs contribute to and influence the annual preseason calibration results and for calibration 1007, these mostly resulted in forecasts of increased abundance for many stocks (Figure 3-9). The amount of increase (or decrease) varies by stock among the AABM fisheries.

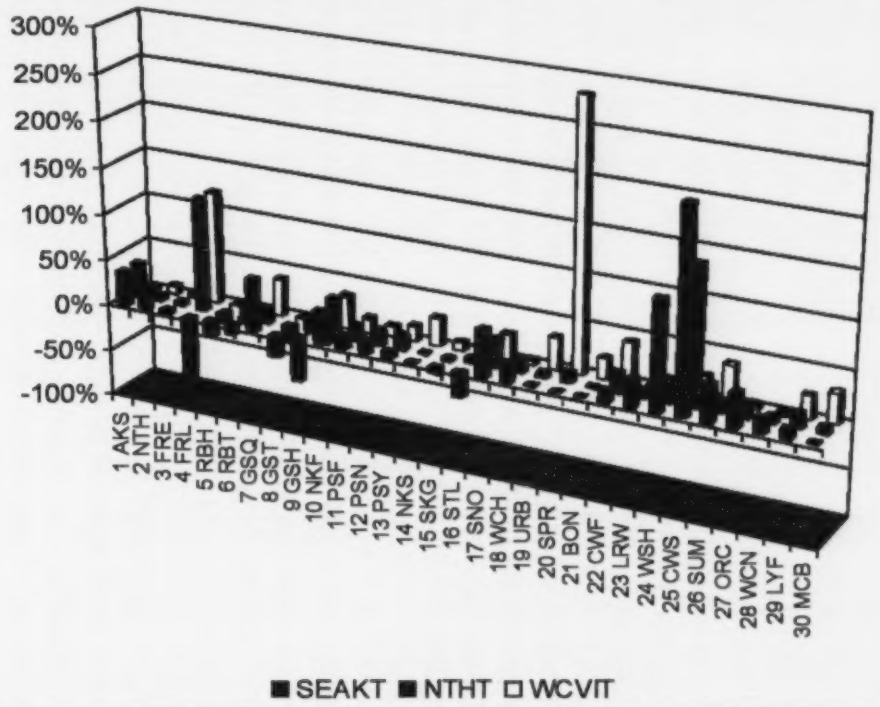

Figure 3-9 Percentage change in the 2010 stock-specific vulnerable cohort abundances relative to the postseason estimates for 2009 for the three AABM aggregate fisheries. Three letter acronyms for each of the 30 stocks or stock aggregates included in the calibration are shown below the x-axis. Blue bars are for the SEAK AABM, maroon bars for the NBC AABM and light blue bars for the WCVI AABM.

3.3.2 Model estimates of stock composition of AABM fisheries, 1979-2009

There are 30 model stocks (Appendix A). However, the majority of model catches in AABM fisheries are often composed of a few smaller set of major stocks 9 (Figure 3-10 through Figure 3-12). The relative abundance, as per CLB 1007, for each major stock is shown in those graphs. In general, postseason AIs had a peak during the late 1980s (87, 88, & 89) and another in 2003 and 2004.

The major model stocks contributing to the SEAK AIs are: Oregon Coastal, Upriver Brights, WCVI Natural and Hatchery, North/Central BC, Fraser Early, and Southeast Alaska (Figure

3-10). The "other" category is primarily driven by Upper Georgia Strait, Columbia River Summers, and Mid Columbia River Brights.

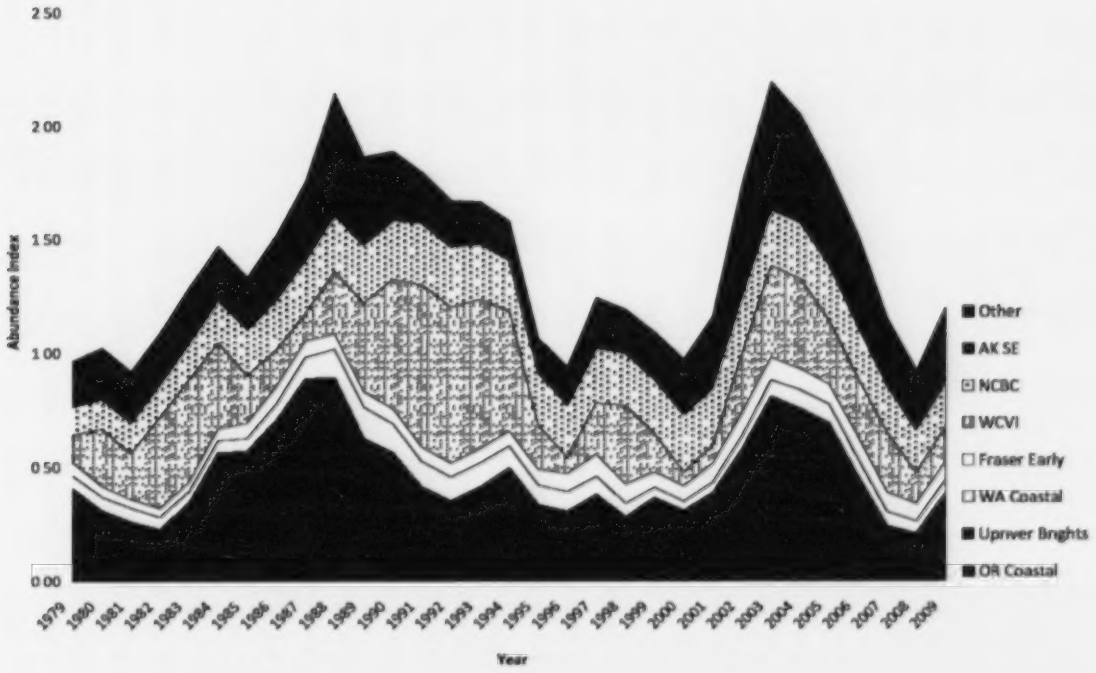

Figure 3-10. Total abundance indices for the SEAK troll fishery with annual stock composition indicated by abundance indices for major model stocks from CLB 1007.

The major model stock groups contributing to the NBC AABM fishery AIs are: Oregon Coastal, Upriver Brights, WCVI Natural and Hatchery, North/Central BC, Washington Coastal Wild and Hatchery, Upper and Lower Georgia Strait, and Fraser Early (Figure 3-11). The "other" category is primarily driven by Columbia River Summers, Mid Columbia River Brights and Willamette Springs.

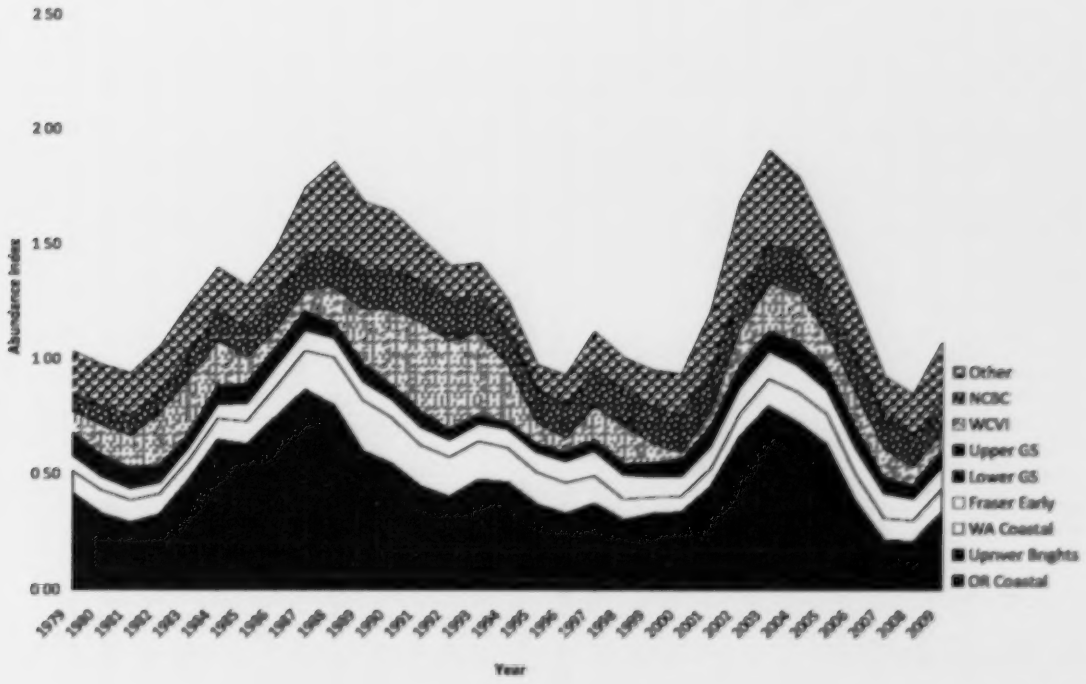

Figure 3-11. Total abundance indices for the Northern BC troll fishery with annual stock composition indicated by abundance indices for major model stocks from CLB 1007.

The major model stock groups in the WCVI fishery are: Oregon Coastal, Upriver Brights, Washington Coastal, WCVI Natural and Hatchery, North/Central BC, Fraser Early, and Southeast Alaska (Figure 3-12). The "Other" category is comprised primarily of Columbia River Summers, Puget Sound, and Columbia River Tules fish.

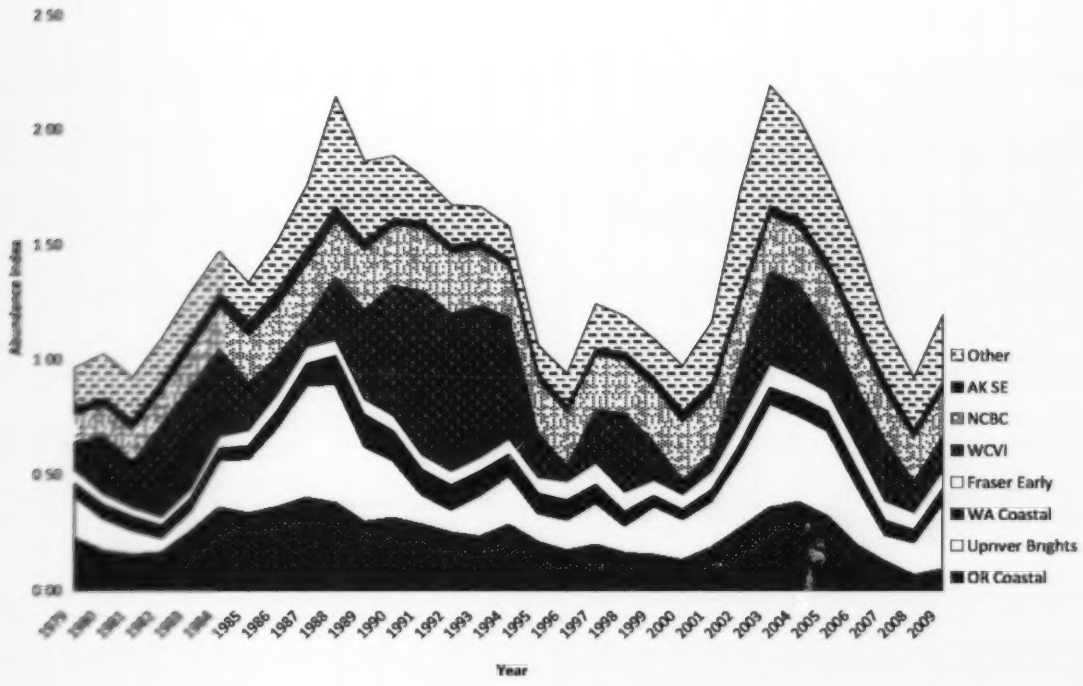

Figure 3-12. Total abundance indices for the WCVI troll fishery with annual stock composition indicated by abundance indices for major model stocks from CLB 1007.

3.4 Overages and Underages

Until an approach for full implementation of overage/underage provisions has been developed and accepted by the PSC, the Commissioners have instructed the CTC to track and report overages and underages relative to agreed-upon harvest objectives.

3.4.1 AABM Fisheries

Table 3-5 shows the differences between the postseason allowable catches and the observed catches in AABM fisheries for 1999–2009, and the cumulative differential for those years. Two out of three AABM fisheries have cumulative underages. In SEAK, observed catches have been below final allowable catches for three of the eleven years; the cumulative differential is 0.5% or 0.6%. In NBC, observed catches have been below the final allowable catches in eight of the eleven years; the cumulative differential is –23.6%. In WCVI, observed catches have been below allowable catches in four of the eleven years; the cumulative differential is –6.9%.

Table 3-5 Deviations in numbers of Chinook salmon and percentages from catch targets derived from the first postseason AI (Table 3-3) for Pacific Salmon Treaty AABM fisheries in 1999 to 2008.

	SEAK		NBC		WCVI	
Year	Number of Fish	Percent Difference	Number of Fish	Percent Difference	Number of Fish	Percent Difference
1999	+14,642	+7.9%	-39,374	-31.2%	-70,587	-66.0%
2000	+7,993	+4.5%	-91,600	-74.2%	+15,238	+17.7%
2001	-63,381	-25.3%	-115,400	-72.6%	-27,830	-19.1%
2002	-14,767	-4.0%	-87,663	-36.9%	-31,764	-16.1%
2003	-60,081	-13.7%	-85,543	-30.9%	-93,079	-34.6%
2004	-1,281[1] +3,366	-0.3% +0.8%	-25,492	-9.5%	+7,024	+3.4%
2005	+349	+0.1%	+2,906	+1.2%	+22,962	+12.8%
2006	+4,101	+1.2%	+15,985	+8.0%	+1,383	+1.0%
2007	+69,219	+26.7%	+1,235	+0.9%	+17,250	+14.2%
2008	+19,522	+12.8%	-25,253	-20.9%	+8,826	+6.4%
2009	+38,451	+21.8%	-29,630	-21.3%	+33,317	+36.5%
Cum.	+14,666 19,314[1]	0.5% 0.6%[1]	-479,829	-23.6%	-117,260	-6.9%

[1] The lower value results from subtracting a terminal exclusion catch for the Stikine River in 2004, which is in dispute.

3.5 ISBM Indices by Stock

For ISBM fisheries, the 2008 PSC Agreement specifies that Canada and the United States will reduce base period exploitation rates on specified stocks by 36.5% and 40%, equivalent to ISBM indices of 63.5% and 60% percent, respectively. This requirement is referred to as the 'general obligation' and does not apply to stocks that achieve their CTC agreed escapement goal. Estimated ISBM fishery indices are shown in Table 3-6 for Canadian fisheries and Table 3-7 for U.S. fisheries. Both tables present CWT-based indices for 2008, and Chinook model-based predicted indices for 2010. The agreement specifies that the indices for postseason assessment be assessed using the CWT-based estimates, 2008 is the most recent analysis available. CWT-based indices for 1999-2008 and model-based indices for 2001-2010 are presented in Appendix B.

Table 3-6 Canadian 2008 ISBM indices based on CWT and the 2010 indices predicted from the PSC Chinook Model.

		Canadian ISBM Indices	
Stock Group	**Escapement Indicator Stock**	**CWT Indices for 2008**	**Model Indices for 2010**
Lower Strait of Georgia[3]	Cowichan Nanaimo	0.242 [4] NA [1,5]	0.203 [6]
Fraser Late[3]	Harrison River [2]	0.031 [7]	0.138
North Puget Sound Natural Springs[3]	Nooksack Skagit	NA NA	0.568 0.568
Upper Strait of Georgia[3]	Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish	0.073	0.122
Fraser Early (spring and summers) [3]	Upper Fraser, Mid Fraser, Thompson	NA	0.121
West Coast Vancouver Island Falls[3]	WCVI (Artlish, Burman, Kaouk, Tahsis, Tashish, Marble)	0.652 [8]	0.122
Puget Sound Natural Summer / Falls[3]	Skagit Stillaguamish Snohomish Lake Washington Green River	NA NA NA NA 0.106	0.709 0.791 0.718 0.690 [9] 0.670 [9]
North / Central B. C[3].	Yakoun, Nass, Skeena, Area 8	NA	0.177
Washington Coastal Fall Naturals	Hoko, Grays Harbor, Queets [2], Hoh [2], Quillayute [2]	NA	0.134
Columbia River Falls	Upriver Brights [2] Deschutes[2] Lewis [2]	NA NA NA	0.110 0.110 0.920
Columbia R Summers	Mid-Columbia Summers [2]	NA	0.084
Far North Migrating OR Coastal Falls	Nehalem [2], Siletz [2], Siuslaw [2]	NA	NA

[1] Not available (NA) because of insufficient data (lack of stock specific tag codes, base period CWT recoveries, etc).
[2] Stock or stock group with a CTC agreed escapement goal.
[3] Stock groups listed in Annex 4, Chapter 3, Attachment IV.
[4] An inconsistency was discovered between the approaches used to calculate the model-based and CWT-based indices. The former included harvest rates for terminal sport while the latter did not. Terminal sport harvest rates are now included in the calculation of both indices. Further review is yet required to determine whether the base period terminal sport harvest rates obtained from analyses of Big Qualicum CWT recoveries adequately represent impacts that would have occurred on Cowichan Chinook.
[5] Several problems have been identified in the approach previously used to calculate the CWT-based indices for Nanaimo Chinook. Until these problems are resolved, indices for this stock will not be reported.
[6] Although model-based indices were previously calculated separately for Cowichan and Nanaimo, these did not adequately represent impacts on either LGS stock because the model-based data represent an aggregate of the two stocks and methods do not currently exist to correctly disaggregate these data for calculation of the ISBM values. Until such methods are developed, a single index value only will be reported representing the aggregate.
[7] The terminal sport harvest rates for Chilliwack Hatchery Chinook, the indicator stock, were removed from the calculation for the Harrison River naturals because sport harvest has been essentially zero on the natural population.
[8] ISBM indices for WCVI naturals are based on information from Robertson Cr. hatchery stock, including terminal harvest rates. Prior to this report, harvest rates for terminal net and sport fisheries were treated as equal between the naturals and the hatchery indicator. However, this ignored the fact that since 1999, there has been no terminal net harvest of the vast majority of natural stocks on WCVI. Consequently, indices for WCVI naturals were adjusted to reflect this zero terminal net harvest rate. In addition, some inconsistencies were noted in the treatment of terminal harvest rates between the model and CWT indices for this stock group. These inconsistencies were eliminated.
[9] For Canadian ISBM fisheries, the same distribution and Index value are used for Lake Washington and Green R.

Table 3-7 U.S. 2008 ISBM indices based on CWT and the 2010 indices predicted from the PSC Chinook Model.

Stock Group	Escapement Indicator Stock	U.S. ISBM Indices	
		CWT Indices for 2008	Model Indices for 2010
Washington Coastal Fall Naturals[3]	Hoko	NA [1]	0.130
	Grays Harbor	0.390	0.382
	Queets [4]	0.610	0.285
	Hoh [2]	0.950	0.987
	Quillayute [2]	1.160	0.963
Columbia River Falls[3]	Upriver Brights [2]	1.830	0.801
	Deschutes[2]	0.540	1.004
	Lewis [2]	0.630	0.505
Puget Sound Natural Summer / Falls[3]	Skagit	NA	0.261
	Stillaguamish	NA	0.117
	Snohomish	NA	0.125
	Lake Washington	NA	0.517
	Green R	0.280	0.520
Fraser Late [3]	Harrison River [2]	0.260	0.209
Columbia R Summers[3]	Mid-Columbia Summers [2]	6.800	1.142
Far North Migrating OR Coastal Falls[3]	Nehalem [2]	0.920	0.916[5]
	Siletz [2]	0.670	0.698[5]
	Siuslaw [2]	0.640	2.028[5]
North Puget Sound Natural Springs[3]	Nooksack	0.210	0.181
	Skagit	NA	0.245
Lower Strait of Georgia	Cowichan,	4.040	0.216
	Nanaimo	NA	NA
Upper Strait of Georgia	Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish	NA	NC [4]
Fraser Early (spring and summers)	Upper Fraser, Mid Fraser, Thompson	NA	0.111
West Coast Vancouver Island Falls	WCVI (Artlish, Burman, Kaouk, Tahsis, Tashish, Marble)	NA	0.213
North / Central B. C.	Yakoun, Nass, Skeena, Area 8	NA	NC[4]

[1] Not available (NA) because of insufficient data (lack of stock specific tag codes, base period CWT recoveries, etc).
[2] Stock with a CTC agreed escapement goal.
[3] Stock groups listed in Annex 4, Chapter 3, Attachment V.
[4] NC means that the current model assumes the stock is not caught in U.S. ISBM fisheries.
[5] Oregon coast stocks are based on a three year average harvest rate in in-river fisheries and are thus high. In addition Base Period harvest rates were low in terminal area fisheries.

3.5.1 CWT-based Indices in 2008

Figure 3-13 and Figure 3-14 show the historical ISBM indices based on CWT recoveries for 1999-2008. It should be noted that this index is ignored if escapement goals are met. In the eventuality that a goal is not being met, then the general obligation needs to be achieved.

Canadian ISBM indices from the CWT-based estimates for 2008 were reduced more than required under the agreement for four of the five CWT indices which could be calculated, the exception being WCVI Falls (Figure 3-14). Several inconsistencies were identified in the way these indices had been computed in the past, as noted in the footnotes 4-9 in Table 3-6. Most of them were inconsistencies between the ways indices had been calculated by the model versus in the CWT exploitation rate assessment. However, in the case of Lower Georgia Strait, Nanaimo was dropped from the CWT-based index because of concern about the way the terminal fishery rates were estimated. In addition, Nanaimo and Cowichan stocks are no longer reported separately in the model-based index because a way to split the two stocks in the base period has not yet been developed.

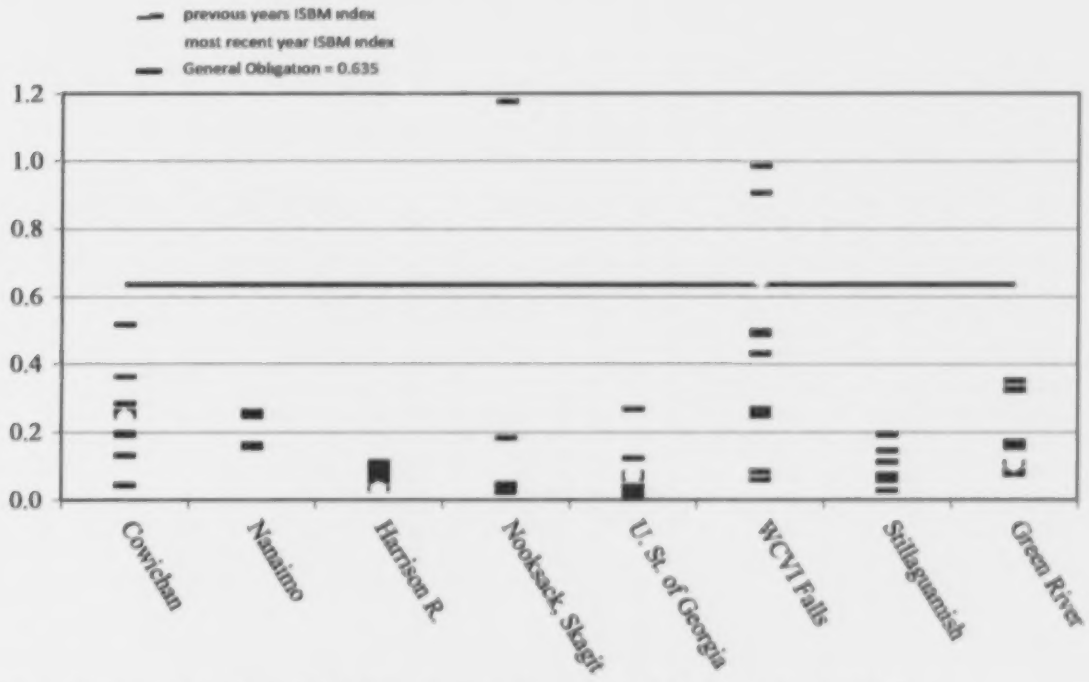

Figure 3-13. CWT-based ISBM indices for Canadian fisheries for 1999-2008.

Five of the 15 U.S. ISBM indices for the CWT-based estimates for 2008 were reduced more than required. The other 10 U.S. CWT-based ISBM indices exceeded 0.60. These 10 stocks (Upriver Brights, Quillayute, Queets, Hoh, Lewis, Mid-Columbia Summers, Nehalem, Siletz, Siuslaw and Cowichan) have agreed escapement goals. Four of these stocks (Upriver Brights, Quillayute, Hoh, and Mid-Columbia Summers) met or exceeded their respective escapement goals, and thus are exempted from the general obligation.

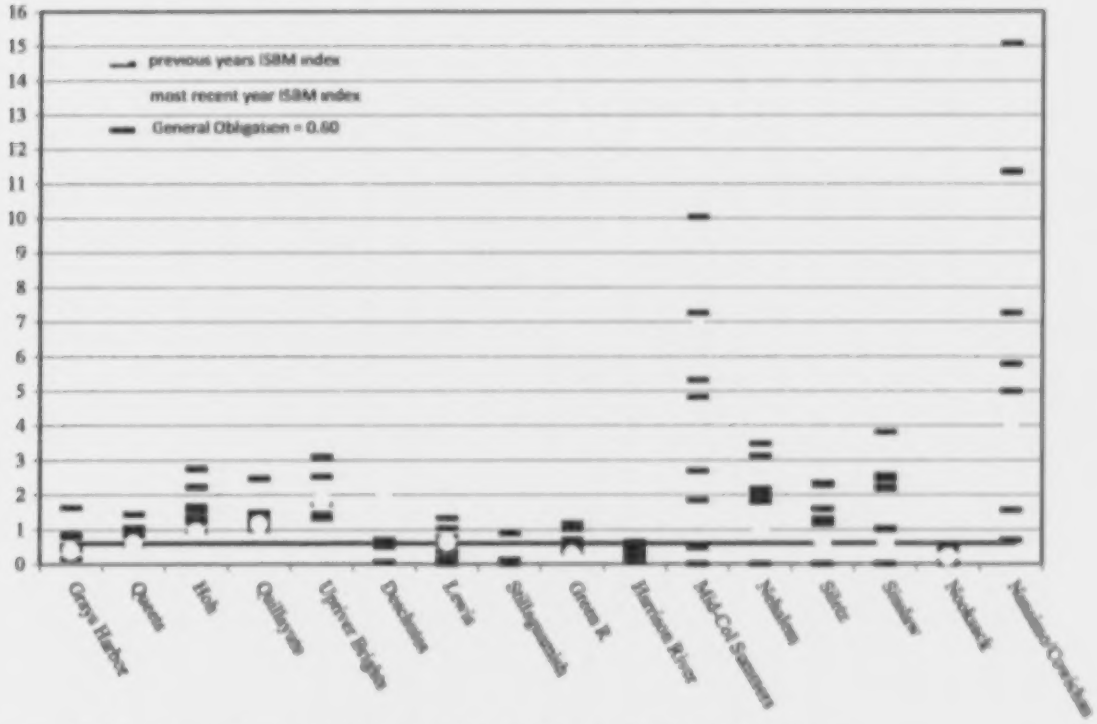

Figure 3-14. CWT-based ISBM indices for U.S. fisheries for 1999-2008.

3.5.2 Predicted ISBM Indices for 2010

Six of the 18 ISBM indices for Canada that are based on outputs from calibration 1007 are predicted to exceed the allowable value of 0.635 for Canadian ISBM fisheries in 2010 (Table 3-6). Five of these six stocks are Puget Sound Natural Summer/Fall stocks, and do not have CTC-accepted escapement goals. One of the six stocks, the Lewis River, has a CTC escapement goal, but was below goal in 2009.

Eight of the 23 U.S. ISBM indices based on calibration 1007 are predicted to be above the allowable limit of 0.60 for U.S. ISBM fisheries in 2010 (Table 3-7). All eight have CTC agreed escapement goals: Hoh, Quillayute, Upriver Brights, Deschutes, Mid-Columbia Summers, Nehalem, Siletz, and Siuslaw. Of the stocks with goals, four were at or above goal in 2009, and two were slightly under goal (Mid. Col. Summer, and Hoh) and two of the Oregon stocks were below goal in 2009.

3.6 General Forecast Methods

For those stocks with externally provided forecasts of abundance in 2010, management agencies used two general methods to predict terminal returns or escapements:

Sibling Models. Empirical relationships between abundance (commonly measured as terminal run size) of age *a* fish in calendar year *CY* and the comparable abundance of age

$a+1$ fish in year $CY+1$ are used to predict abundance in 2010 from data collected in previous years (forecast type S in Table 3-2).

Average Return Rate Models. Return rates of adults by age from smolts or parents are averaged over past brood years, then these averages are used to discount abundance of smolts or parents for brood years that will be exploited in 2010 (forecast type R in Table 3-2).

3.6.1 Agency Stock Forecast Used In The Model

A summary of model-produced and agency-produced forecasts from 1999-2009 is shown in Table 3-8. The relationship between the model stocks in Table 3-8 and exploitation rate indicator stocks and PST Annex stocks are shown in Appendix A. A major factor influencing how well the model can predict Chinook abundance in AABM fisheries is how well the model can predict the returns of Chinook (in terms of ocean escapement or spawning escapement) in the forecast year. During model calibration, agency forecasts are input to the model for all model stocks for which model forecasts are available. Thus, for model stocks with external forecasts, the variation between model forecasts and actual returns can be broken into two parts: the ability of the model to match the input agency forecasts, and the ability of the agency forecasts to accurately predict the actual return of Chinook in the upcoming year. In Table 3-8 the column labeled 'Model Fcst/Agency Fcst' shows the percentage deviation of the model prediction from the agency forecast. The column labeled 'Agency Fcst/Postseason' shows the percentage deviation of the agency forecast from the actual return. The column labeled 'Model Fcst/Postseason' shows the percentage deviation of the model prediction of the return from the actual return. A value of 100% would indicate that the predicted and actual values were the same.

The model forecasts are similar to the agency forecasts on average. This result is strongly influenced by the incorporation of the agency forecasts into the model calibration procedure. The mean absolute percent error (MAPE) of all 'Model Fcst/Agency Fcst' is 11.9%, and the average percent error is -0.6%. For all agency forecasts, the MAPE is 35.2% and the average percent error is -5.2% with respect to the postseason estimate. For model forecasts, the MAPE is 37.4% with respect to the postseason estimate, whereas, the average percent error is -9.6%

The effect of the error in predicting terminal returns or escapement on the AABM abundance indices varies between fisheries and stocks. There is no clear directional bias of this error. For example, a small stock (small in ocean abundance terms) that is over or under predicted will generally not have a large effect on a fishery's abundance index. Errors in predicting a large stock may or may not affect a fishery's index, depending on the contribution of that stock to the fishery in question (see Appendix F for the model estimated stock composition of selected ocean fisheries). In addition, since the abundance index is an index, rather than an absolute measure of abundance, over or under prediction of a stock's terminal return or escapement would not affect the abundance index of a fishery if the bias in the prediction is consistent over all years in the index, including the base period.

Table 3-8 Preseason forecasts and postseason estimates for PSC model stocks, 1999-2010.

Stock	Year	Model Forecast	Agency Forecast	Postseason Return	Model Fcst/ Agency Fcst	Agency Fcst/ Postseason	Model Fcst/ Postseason
AKS[7] (Alaska SSE)	1999	11,866	n/a	12,274	n/a	n/a	97%
	2000	18,967	n/a	16,196	n/a	n/a	117%
	2001	22,130	n/a	21,850	n/a	n/a	101%
	2002	15,650	n/a	18,790	n/a	n/a	83%
	2003	22,316	n/a	14,676	n/a	n/a	152%
	2004	11,880	n/a	17,414	n/a	n/a	68%
	2005	25,204	n/a	16,102	n/a	n/a	157%
	2006	17,988	n/a	20,866	n/a	n/a	86%
	2007	25,653	n/a	15,095	n/a	n/a	170%
	2008	14,626	n/a	13,865	n/a	n/a	105%
	2009	14,332	n/a	11,296	n/a	n/a	127%
	2010	16,445	n/a				
	AVG.				n/a	n/a	115%
NTH[8] (North/ Central BC)	1999	149,593	n/a	154,294	n/a	n/a	97%
	2000	159,818	n/a	188,482	n/a	n/a	85%
	2001	189,088	n/a	214,541	n/a	n/a	88%
	2002	228,073	n/a	150,870	n/a	n/a	151%
	2003	161,995	n/a	170,410	n/a	n/a	95%
	2004	171,070	n/a	158,967	n/a	n/a	108%
	2005	154,552	n/a	139,303	n/a	n/a	111%
	2006	133,627	n/a	159,959	n/a	n/a	84%
	2007	156,017	n/a	126,159	n/a	n/a	124%
	2008	131,262	n/a	113,642	n/a	n/a	116%
	2009	113,024	n/a	126,605	n/a	n/a	89%
	2010	136,998	n/a				
	AVG.				n/a	n/a	104%
RBH+RBT[9] (WCVI Hatchery + Natural)	1999	78,074	68,400	101,683	114%	67%	77%
	2000	21,040	15,040	37,047	140%	41%	57%
	2001	33,702	30,633	87,004	110%	35%	39%
	2002	128,068	109,882	167,731	117%	66%	76%
	2003	111,430	105,801	215,346	105%	49%	52%
	2004	166,548	144,180	257,517	116%	56%	65%
	2005	244,768	218,840	156,837	112%	140%	156%
	2006	152,662	138,878	197,097	110%	70%	77%
	2007	151,925	117,321	118,082	129%	99%	129%
	2008	67,347	60,255	101,096	112%	61%	67%
	2009	63,200	58,382	88,429	108%	n/a	71%
	2010	75,748	61,586		123%		
	AVG.				116%	68%	79%

Table 3-8 Continued.

Stock	Year	Model Forecast	Agency Forecast	Postseason Return	Model Fcst/ Agency Fcst	Agency Fcst/ Postseason	Model Fcst/ Postseason
GSQ[1] (Upper Strait of Georgia)	1999	16,472	n/a	16,140	n/a	n/a	102%
	2000	19,452	n/a	22,603	n/a	n/a	86%
	2001	25,828	n/a	30,219	n/a	n/a	85%
	2002	41,492	n/a	30,675	n/a	n/a	135%
	2003	36,882	n/a	31,059	n/a	n/a	119%
	2004	39,766	n/a	25,061	n/a	n/a	159%
	2005	38,798	n/a	25,309	n/a	n/a	153%
	2006	39,577	n/a	29,663	n/a	n/a	133%
	2007	41,711	n/a	23,790	n/a	n/a	175%
	2008	30,065	n/a	17,274	n/a	n/a	174%
	2009	26,131	n/a	19,923	n/a	n/a	131%
	2010	26,624	n/a				
	AVG.				n/a	n/a	132%
GSH[2] (Lower Strait of Georgia Hatchery)	1999	23,648	n/a	25,258	n/a	n/a	94%
	2000	19,165	n/a	23,422	n/a	n/a	82%
	2001	17,547	n/a	34,775	n/a	n/a	50%
	2002	25,051	n/a	23,557	n/a	n/a	106%
	2003	22,409	n/a	24,084	n/a	n/a	93%
	2004	16,573	n/a	22,269	n/a	n/a	74%
	2005	21,046	n/a	28,226	n/a	n/a	75%
	2006	22,937	n/a	22,756	n/a	n/a	101%
	2007	24,378	n/a	13,155	n/a	n/a	185%
	2008	11,765	n/a	13,410	n/a	n/a	88%
	2009	7,371	n/a	14,398	n/a	n/a	51%
	2010	7,999	n/a				
	AVG.				n/a	n/a	91%
GST[1] (Lower Strait of Georgia Natural)	1999	14,737	n/a	8,715	n/a	n/a	169%
	2000	11,094	n/a	8,223	n/a	n/a	135%
	2001	7,955	n/a	8,569	n/a	n/a	93%
	2002	8,833	n/a	7,812	n/a	n/a	113%
	2003	8,088	n/a	5,903	n/a	n/a	137%
	2004	5,157	n/a	3,642	n/a	n/a	142%
	2005	4,459	n/a	4,870	n/a	n/a	92%
	2006	4,945	n/a	4,880	n/a	n/a	101%
	2007	7,782	n/a	4,778	n/a	n/a	163%
	2008	6,823	n/a	4,926	n/a	n/a	139%
	2009	5,691	n/a	2,966	n/a	n/a	192%
	2010	2,972	n/a				
	AVG.				n/a	n/a	134%

Table 3-8 Continued.

Stock	Year	Model Forecast	Agency Forecast	Postseason Return	Model Fcst/ Agency Fcst	Agency Fcst/ Postseason	Model Fcst/ Postseason
FRE[2] (Fraser Early)	1999	163,342	n/a	105,473	n/a	n/a	155%
	2000	118,058	n/a	116,233	n/a	n/a	102%
	2001	122,333	n/a	154,175	n/a	n/a	79%
	2002	170,232	n/a	186,827	n/a	n/a	91%
	2003	175,919	n/a	188,183	n/a	n/a	93%
	2004	185,450	n/a	141,029	n/a	n/a	131%
	2005	151,591	n/a	134,641	n/a	n/a	113%
	2006	186,279	n/a	203,212	n/a	n/a	92%
	2007	196,060	n/a	110,884	n/a	n/a	177%
	2008	128,347	n/a	148,284	n/a	n/a	87%
	2009	129,707	n/a	134,307	n/a	n/a	97%
	2010	144,214	n/a				
	AVG.				n/a	n/a	111%
FRL[1] (Fraser Late)	1999	144,316	82,650	184,099	175%	45%	78%
	2000	187,970	222,400	120,744	85%	184%	156%
	2001	141,745	131,800	141,196	108%	93%	100%
	2002	132,946	160,100	165,245	83%	97%	80%
	2003	127,144	114,780	313,929	111%	37%	41%
	2004	104,597	97,227	196,396	108%	50%	53%
	2005	121,315	108,061	124,704	112%	87%	97%
	2006	116,263	116,682	108,639	100%	107%	107%
	2007	122,402	107,311	105,385	114%	102%	116%
	2008	125,100	116,038	88,012	108%	132%	142%
	2009	119,886	91,391	87,365	131%	105%	137%
	2010	119,953	118,891		101%		
	AVG.				112%	94%	101%
NKS[1] (Nooksack Spring)	1999	1068	n/a	251	n/a	n/a	425%
	2000	834	n/a	444	n/a	n/a	188%
	2001	982	n/a	531	n/a	n/a	185%
	2002	1216	n/a	513	n/a	n/a	237%
	2003	1301	n/a	414	n/a	n/a	314%
	2004	1708	n/a	448	n/a	n/a	381%
	2005	1549	n/a	330	n/a	n/a	469%
	2006	485	677	630	72%	107%	77%
	2007	582	575	334	101%	172%	174%
	2008	371	378	351	98%	108%	106%
	2009	336	315	291	107%	108%	115%
	2010	374	390		96%		
	AVG.				94%	124%	243%

Table 3-8 Continued.

Stock	Year	Model Forecast	Agency Forecast	Postseason Return	Model Fcst/ Agency Fcst	Agency Fcst/ Postseason	Model Fcst/ Postseason
NKF[2] (Nooksack/ Samish Fall Fingerling)	1999	27,472	27,000	41,186	102%	66%	67%
	2000	21,277	19,000	32,646	112%	58%	65%
	2001	33,974	36,450	64,685	93%	56%	53%
	2002	50,361	54,420	54,302	93%	100%	93%
	2003	48,259	45,750	30,047	105%	152%	161%
	2004	37,980	34,200	17,913	111%	191%	212%
	2005	19,808	19,523	15,872	101%	123%	125%
	2006	16,854	16,899	30,591	100%	55%	55%
	2007	22,086	18,834	25,895	117%	73%	85%
	2008	34,392	35,271	29,126	98%	121%	118%
	2009	20,813	23,014	21,548	90%	107%	97%
	2010	32,061	32,627		98%		
	AVG.				102%	100%	103%
SNO[2] (Snohomish Wild)	1999	5,823	5,600	4,832	104%	116%	121%
	2000	5,997	6,000	6,116	100%	98%	98%
	2001	5,876	5,760	5,414	102%	106%	109%
	2002	6,524	6,700	7,267	97%	92%	90%
	2003	6,033	5,450	5,571	111%	98%	108%
	2004	12,845	15,700	10,700	82%	147%	120%
	2005	10,161	n/a	4,611	n/a	n/a	220%
	2006	7,831	8,729	8,438	90%	103%	93%
	2007	11,153	12,289	4,005	91%	307%	278%
	2008	6,103	6,541	8,490	93%	77%	72%
	2009	7,558	8410	2,391	90%	352%	316%
	2010	8,050	9,858		82%		
	AVG.				96%	150%	148%
SKG[2] (Skagit Summer/ Fall Wild)	1999	9,107	7,600	5,139	120%	148%	177%
	2000	6,988	7,300	16,266	96%	45%	43%
	2001	9,064	9,184	14,193	99%	65%	64%
	2002	12,635	13,455	18,114	94%	74%	70%
	2003	11,906	11,348	10,583	105%	107%	113%
	2004	18,761	20,399	22,144	92%	92%	85%
	2005	16,220	19,493	22,784	83%	86%	71%
	2006	22,765	21,811	21,246	104%	103%	107%
	2007	12,324	14,252	12,646	86%	113%	97%
	2008	18,598	18,302	14,254	102%	128%	130%
	2009	19,607	20,400	10,989	96%	186%	178%
	2010	9,894	11,853		83%		
	AVG.				98%	104%	103%

Table 3-8 Continued.

Stock	Year	Model Forecast	Agency Forecast	Postseason Return	Model Fcst/ Agency Fcst	Agency Fcst/ Postseason	Model Fcst/ Postseason
PSN[2] (Puget Sound Natural)	1999	28,800	28,400	22,974	101%	124%	125%
	2000	15,364	10,000	20,701	154%	48%	74%
	2001	19,938	18,900	38,387	105%	49%	52%
	2002	20,008	19,801	30,166	101%	66%	66%
	2003	25,743	26,600	19,445	97%	137%	132%
	2004	24,616	23,200	34,052	106%	68%	72%
	2005	22,208	17,715	13,659	125%	130%	163%
	2006	20,207	21,301	26,048	95%	82%	78%
	2007	18,964	17,014	22,788	111%	75%	83%
	2008	23,118	21,100	23,182	110%	91%	100%
	2009	20,287	23,073	8,305	88%	278%	244%
	2010	14,734	15,128		97%		
	AVG.				109%	104%	108%
STL[1] (Stillaguamish Summer/Fall Wild)	1999	1,332	n/a	1,098	n/a	n/a	121%
	2000	1,370	1,500	1,645	91%	91%	83%
	2001	1,328	1,360	1,386	98%	98%	96%
	2002	1,372	1,449	1,588	95%	91%	86%
	2003	1,860	2,050	988	91%	207%	188%
	2004	1,795	n/a	1,506	n/a	n/a	119%
	2005	1,377	n/a	990	n/a	n/a	139%
	2006	1,116	1,169	1,273	95%	92%	88%
	2007	1,424	1,510	785	94%	192%	181%
	2008	689	637	1,800	108%	35%	38%
	2009	1,268	1,086	1,001	117%	108%	127%
	2010	898	817		110%		
	AVG.				99%	115%	115%
PSF+PSY[2] (Puget Sound Fingerling + Yearling)	1999	66,876	69,285	134,603	97%	51%	50%
	2000	67,306	69,800	99,451	96%	70%	68%
	2001	102,899	105,955	131,547	97%	81%	78%
	2002	114,889	124,608	143,642	92%	87%	80%
	2003	114,275	133,850	132,282	85%	101%	86%
	2004	127,902	132,300	128,510	97%	103%	100%
	2005	104,084	110,542	158,824	94%	70%	66%
	2006	107,452	113,486	174,554	95%	65%	62%
	2007	127,115	135,714	192,591	94%	70%	66%
	2008	166,071	159,200	137,921	104%	115%	120%
	2009	110,373	133,187	112,827	83%	118%	98%
	2010	138,238	140,074		99%		
	AVG.				94%	85%	79%

Table 3-8 Continued.

Stock	Year	Model Forecast	Agency Forecast	Postseason Return	Model Fcst/ Agency Fcst	Agency Fcst/ Postseason	Model Fcst/ Postseason
WCN[2] (Washington Coastal Natural)	1999	42,129	43,780	25,065	96%	175%	168%
	2000	34,741	n/a	27,528	n/a	n/a	126%
	2001	34,563	35,306	35,495	98%	99%	97%
	2002	33,902	33,489	37,393	101%	90%	91%
	2003	32,785	n/a	41,469	n/a	n/a	79%
	2004	28,185	n/a	60,101	n/a	n/a	47%
	2005	34,857	n/a	44,319	n/a	n/a	79%
	2006	45,084	n/a	38,761	n/a	n/a	116%
	2007	35,695	32,362	26,093	110%	124%	137%
	2008	32,187	26,923	32,418	120%	83%	99%
	2009	29,758	31,318	38,616	95%	81%	77%
	2010	39,215	n/a				
	AVG.				103%	109%	101%
WCH[2] (Washington Coastal Hatchery)	1999	35,239	42,752	14,664	82%	292%	240%
	2000	16,244	n/a	22,545	n/a	n/a	72%
	2001	15,792	n/a	23,156	n/a	n/a	68%
	2002	23,678	n/a	34,685	n/a	n/a	68%
	2003	20,755	18,222	41,839	114%	44%	50%
	2004	28,900	n/a	40,078	n/a	n/a	72%
	2005	28,626	n/a	42,656	n/a	n/a	67%
	2006	37,879	n/a	52,403	n/a	n/a	72%
	2007	41,801	40,497	24,682	103%	164%	169%
	2008	34,841	31,251	27,190	111%	115%	128%
	2009	35,603	42,595	36,908	84%	115%	96%
	2010	38,347	n/a				
	AVG.				99%	146%	100%
CWS[2] (Cowlitz Spring)	1999	3,363	3,950	4,799	85%	82%	70%
	2000	4,922	6,050	6,132	81%	99%	80%
	2001	3,684	4,849	7,182	76%	68%	51%
	2002	5,534	6,800	11,644	81%	58%	48%
	2003	9,550	11,700	25,584	82%	46%	37%
	2004	20,802	27,350	28,696	76%	95%	72%
	2005	18,349	24,850	16,227	74%	153%	113%
	2006	12,841	15,250	19,685	84%	77%	65%
	2007	9,945	10,600	19,519	94%	54%	51%
	2008	9,544	12,400	6,838	77%	181%	140%
	2009	5,122	14,400	7,183	36%	200%	71%
	2010	18,927	19,409		98%		
	AVG.				77%	101%	73%

Table 3-8 Continued.

Stock	Year	Model Forecast	Agency Forecast	Postseason Return	Model Fcst/ Agency Fcst	Agency Fcst/ Postseason	Model Fcst/ Postseason
WSH[2] (Willamette Spring)	1999	46,187	49,875	56,159	93%	89%	82%
	2000	57,202	61,211	59,563	93%	103%	96%
	2001	59,207	59,600	83,831	99%	71%	71%
	2002	73,151	77,434	126,600	94%	61%	58%
	2003	108,530	112,521	128,971	96%	87%	84%
	2004	113,708	112,701	152,920	101%	74%	74%
	2005	105,111	122,280	67,137	86%	182%	157%
	2006	48,879	52,388	63,693	93%	82%	77%
	2007	44,542	61,071	42,776	73%	143%	104%
	2008	20,185	40,851	31,917	49%	128%	63%
	2009	41,793	41,205	38,110	101%	108%	110%
	2010	70,960	66,360		107%		
	AVG.				89%	103%	89%
SUM[2] (Columbia River Summer)	1999	21,651	20,900	22,347	104%	94%	97%
	2000	27,214	28,038	23,169	97%	121%	117%
	2001	27,029	24,500	54,935	110%	45%	49%
	2002	70,290	77,700	92,820	90%	84%	76%
	2003	97,280	87,600	83,120	111%	105%	117%
	2004	83,246	78,589	65,446	106%	120%	127%
	2005	66,190	62,400	60,060	106%	104%	110%
	2006	75,893	78,512	78,196	97%	100%	97%
	2007	56,948	45,555	37,200	125%	122%	153%
	2008	50,171	52,000	55,500	96%	94%	90%
	2009	59,367	70,700	53,878	84%	131%	110%
	2010	81,403	88,800		92%		
	AVG.				102%	102%	104%
BON+CWF[2] (Bonneville + Cowlitz Hatcheries)	1999	26,651	34,800	39,881	77%	87%	67%
	2000	17,095	23,700	26,971	72%	88%	63%
	2001	28,732	32,200	94,240	89%	34%	30%
	2002	100,401	137,600	156,411	73%	88%	64%
	2003	100,196	115,900	154,960	86%	75%	65%
	2004	64,696	77,100	108,308	84%	71%	60%
	2005	65,971	74,100	73,861	89%	100%	89%
	2006	49,302	55,800	58,317	88%	96%	85%
	2007	49,219	54,900	32,689	90%	168%	151%
	2008	58,557	59,000	60,268	99%	98%	97%
	2009	66,704	88,800	76,738	75%	116%	87%
	2010	95,581	90,600		105%		
	AVG.				84%	93%	78%

Table 3-8 Continued.

Stock	Year	Model Forecast	Agency Forecast	Postseason Return	Model Fcst/ Agency Fcst	Agency Fcst/ Postseason	Model Fcst/ Postseason
SPR[2] (Spring Creek Hatchery)	1999	62,831	65,800	50,189	95%	131%	125%
	2000	17,335	21,900	20,528	79%	107%	84%
	2001	56,089	56,600	124,954	99%	45%	45%
	2002	153,070	144,400	160,836	106%	90%	95%
	2003	89,116	96,900	180,592	92%	54%	49%
	2004	124,820	138,000	175,245	90%	79%	71%
	2005	92,021	114,100	93,145	81%	122%	99%
	2006	43,624	50,000	27,918	87%	179%	156%
	2007	19,421	21,800	14,583	89%	149%	133%
	2008	87,109	87,200	79,433	100%	110%	110%
	2009	32,585	59,300	48,970	55%	121%	67%
	2010	167,251	169,000		99%		
	AVG.				89%	108%	94%
URB[2] (Columbia Upriver Bright)	1999	173,866	147,500	165,889	118%	89%	105%
	2000	212,317	171,100	156,553	124%	109%	136%
	2001	150,973	127,200	232,491	119%	55%	65%
	2002	249,721	281,000	276,948	89%	101%	90%
	2003	246,890	280,400	373,191	88%	75%	66%
	2004	246,943	292,200	362,804	85%	81%	68%
	2005	318,535	352,200	278,339	90%	127%	114%
	2006	231,646	253,900	230,390	91%	110%	101%
	2007	168,594	182,400	114,064	92%	160%	148%
	2008	151,839	162,500	196,881	93%	83%	77%
	2009	226,413	259,900	212,047	87%	123%	107%
	2010	296,816	310,800		96%		
	AVG.				98%	101%	98%
LYF[1] (Snake River Wild)	1999	542	n/a	905	n/a	n/a	60%
	2000	1,243	n/a	1,148	n/a	n/a	108%
	2001	733	734	5,163	100%	14%	14%
	2002	2,066	n/a	2,116	n/a	n/a	98%
	2003	2,493	2,185	3,856	114%	57%	65%
	2004	4,323	3,725	2,983	116%	125%	145%
	2005	4,453	4,000	2,602	111%	154%	171%
	2006	8,310	3,500	2,483	237%	141%	335%
	2007	3,128	2,700	2,016	116%	134%	155%
	2008	2,718	2,534	2,222	107%	114%	122%
	2009	5,742	6,952	1,430	83%	486%	402%
	2010	2,609	2,610		100%		
	AVG.				123%	153%	152%

Table 3-8 Continued.

Stock	Year	Model Forecast	Agency Forecast	Postseason Return	Model Fcst/ Agency Fcst	Agency Fcst/ Postseason	Model Fcst/ Postseason
MCB[2] (Mid-Columbia Bright)	1999	37,997	38,300	50,800	99%	75%	75%
	2000	53,460	50,600	37,200	106%	136%	144%
	2001	45,055	43,500	76,600	104%	57%	59%
	2002	102,085	96,200	108,400	106%	89%	94%
	2003	126,698	104,800	150,300	121%	70%	84%
	2004	94,895	90,400	122,600	105%	74%	77%
	2005	93,837	89,400	97,900	105%	91%	96%
	2006	90,881	88,300	80,471	103%	110%	113%
	2007	77,470	68,000	47,106	114%	144%	164%
	2008	59,481	45,000	75,489	132%	60%	79%
	2009	87,172	94,400	73,069	92%	129%	119%
	2010	82,454	72,600		114%		
	AVG.				108%	94%	100%
LRW[2] (Lewis River Wild)	1999	3,072	2,600	3,349	118%	78%	92%
	2000	4,053	3,500	10,234	116%	34%	40%
	2001	16,574	16,700	15,721	99%	106%	105%
	2002	18,910	18,200	24,948	104%	73%	76%
	2003	25,820	24,600	26,021	105%	95%	99%
	2004	24,590	24,100	22,327	102%	108%	110%
	2005	21,937	20,200	16,767	109%	120%	131%
	2006	19,826	16,600	17,896	119%	93%	111%
	2007	10,306	10,100	4,276	102%	236%	241%
	2008	4,479	3,800	7,120	118%	53%	63%
	2009	8,478	8,500	7,533	100%	113%	113%
	2010	11,034	9,700		114%		
	AVG.				108%	101%	107%
ORC[1] (Oregon Coastal)	1999	65,338	72,084	84,293	91%	86%	78%
	2000	61,457	63,259	69,074	97%	92%	89%
	2001	58,062	66,412	132,732	87%	50%	44%
	2002	73,055	73,914	176,929	99%	42%	41%
	2003	101,310	85,483	174,091	119%	49%	58%
	2004	135,716	131,904	130,907	103%	101%	105%
	2005	133,886	167,213	167,682	80%	100%	80%
	2006	126,393	136,373	110,191	93%	124%	112%
	2007	108,338	131,195	47,012	83%	279%	230%
	2008	53,417	70,101	39,615	76%	177%	135%
	2009	32,253	48,072	41,800	67%	115%	77%
	2010	51,234	59,806		86%		
	AVG.				90%	110%	95%

[1] Escapement
[2] Terminal Run
Note that the model forecasts are the forecasts from separate yearly calibrations, not a time series of values from the most recent calibration

4 EVALUATION OF MARK-SELECTIVE FISHERIES

Chinook salmon released from Puget Sound hatcheries and Columbia River Chinook spring run have been mass-marked since brood 1998. Mass marking of Columbia River fall Chinook started with brood year 2005 and for brood year 2009 most of the Chinook production intended for harvest released in Washington and Oregon has been mass marked (SFEC 2009). Mark selective fisheries (MSFs) have been in place in Puget Sound (including US Juan de Fuca) since 2003, on the Columbia since 2001, and in BC Juan de Fuca since 2008 (Table 4-1).

4.1 Catch in MSFs

MSFs have been in place in Puget Sound in Washington Areas 5 and 6, part of Puget Sound north sport (PSN Sp) since 2003, during the summer and in 2005 a winter MSF started in Washington Areas 8.1 and 8.2 (Puget Sound other sport, PSO S). In 2007, additional MSFs were implemented in Washington Areas 9, 10 and 11 (PSO S) in the summer months and in Areas 7 (PSN S), 9 and 10 (PSO S) in the winter months (Table 4-1 and Table 4-2). Total landed catch in MSFs in marine sport fisheries remained fairly constant from 2003 to 2005, around 3,000 to 4,000, but then increased in 2007 to about 25,000, while landed catch in non-selective fisheries ranged from 20,000 to 26,000 over the same period (Figure 4-1). MSFs have been implemented in freshwater areas (TERM S) since 2003 (Figure 4-1 and Table 4-3), with total estimated MSF catch ranging from 1,000 to 7,000. The percent of total MSF catch in the three PSC sport fisheries in Puget Sound (Figure 4-1) is at about 50% in PSN and increased from 0 to 50% in PSO. In the terminal area sport fishery (TERM S) the percent MSF has increased from 19 to 44% (Figure 4-1) from 2003 to 2007 (Table 4-3).

Chinook MSFs have been in place in the Columbia and Willamette rivers since 2001 (Figure 4-2). Most of the catch from MSFs is directed on mass marked spring Chinook from the Willamette, Cowlitz, Kalama, Lewis rivers in the lower Columbia, tributaries in the upper Columbia upstream of Bonneville Dam, and in the Snake River (Figure 4-2), while MSFs on fall Chinook have been small throughout this period compared to non-selective fisheries (Figure 4-2).

A mixed-bag, partial MSF has occurred in the BC Juan de Fuca sport fishery since 2008. The fishery had a minimum size limit of 45 cm, with a 2 Chinook per day bag limit, however wild Chinook could not be retained if they exceeded 67 cm Fork Length. This partial MSF occurred from March 1-May 15, 2008 and from March 2-May 14, 2009. The mixed-bag, partial MSF was regulation was intended to protect Fraser River spring-run age 1.2 and age 1.3 stock groups as they migrated to return to the Fraser River.

Table 4-1. Mark selective fisheries occurring from 2003-2009 (√). See SFEC (2009) for more detailed information on MSF proposals and fisheries.

Fishery	Location	Period	2003	2004	2005	2006	2007	2008
Sport	BC Strait of Juan de Fuca, selected subareas	March-April						√
Sport	WA PS Area 5	Summer	√	√	√	√	√	√
Sport	WA PS Area 6	Summer	√	√	√	√	√	√
Sport	WA PS Area 7	Winter						√
Sport	WA PS Area 8.1	Winter			√	√	√	√
Sport	WA PS Area 8.2	Winter			√	√	√	√
Sport	WA PS Area 9	Summer					√	√
Sport	WA PS Area 9	Winter						√
Sport	WA PS Area 10	Summer					√	√
Sport	WA PS Area 10	Winter						√
Sport	WA PS Area 11	Summer					√	√
Sport	WA PS Area 13	Summer					√	√
Sport	Nooksack River	Sep-Dec		√	√	√	√	√
Sport	Skykomish River	Jun-July	√	√	√	√	√	√
Sport	Carbon & Puyallup River	Aug-Dec	√	√	√	√	√	√
Sport	Upper Skagit River	Jun-July			√	√	√	√
Sport	Nisqually River	Jul-Jan			√	√	√	√
Sport	Columbia River	Summer	√	√	√			√
Sport	Lower Columbia River	Spring	√	√	√	√	√	√
Commercial (tangle net)	Lower Columbia River	Spring	√	√	√	√	√	√
Commercial, (large net)	Lower Columbia River	Spring	√	√	√	√	√	√
Sport	Columbia River	Fall						
Sport	Yakima River	Spring			√	√	√	√
Sport	Lower Snake River	Fall						
Sport	Willamette River	Spring		√	√	√	√	√
Sport	Oregon coast							√

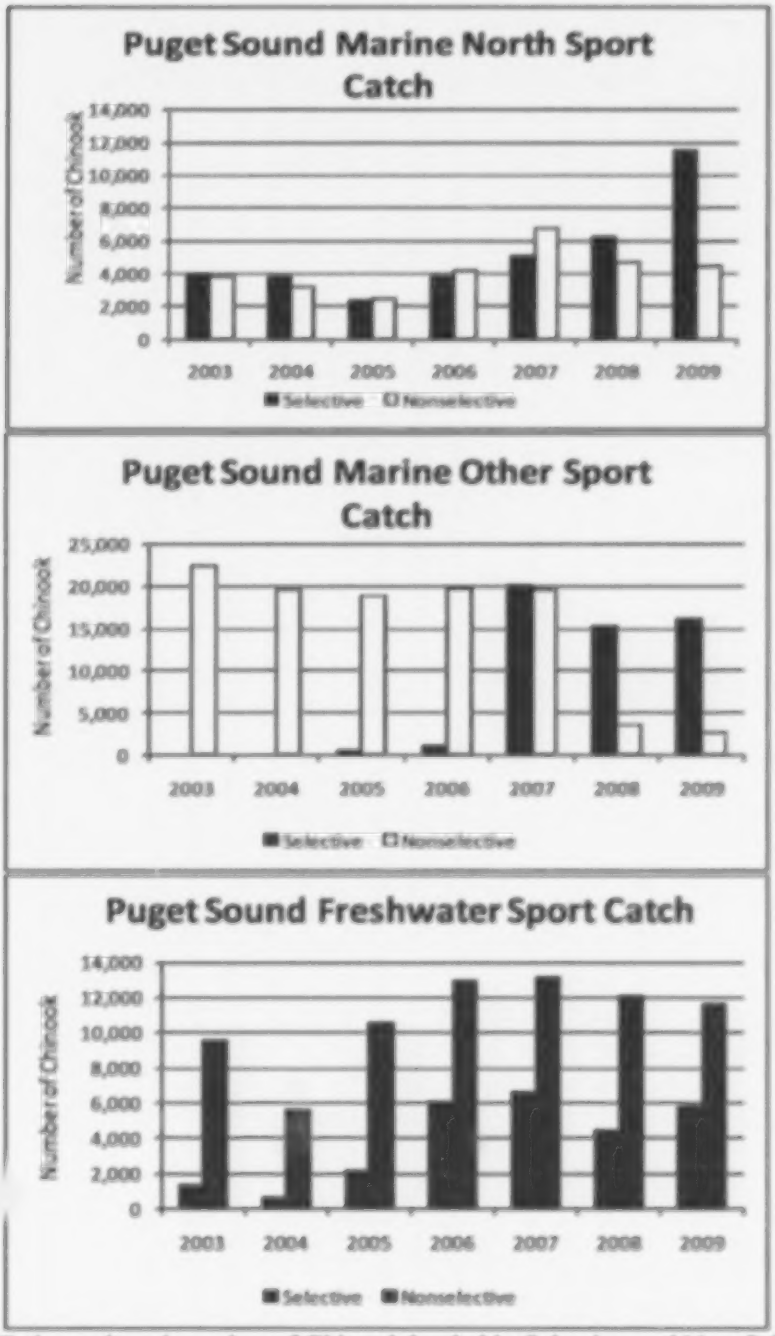

Figure 4-1. Estimated total number of Chinook landed in Selective and Non-Selective fisheries (left y-axis) and % of catch in MSFs (right y-axis) in Puget Sound for catch years 2003-2009.

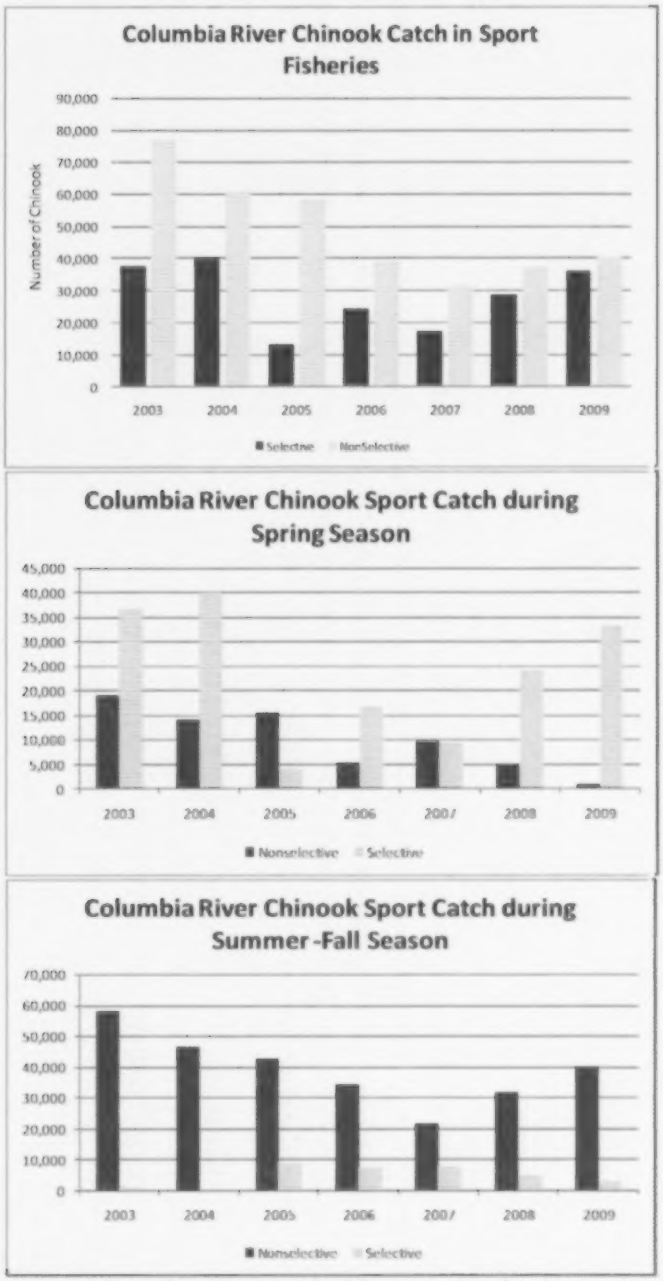

Figure 4-2. Estimated total catch in Columbia River mark selective and non selective sport fisheries and catches during spring (May-June) and summer-fall seasons (Jul-Dec) for catch years 2003-2009.

Table 4-2. Retained or landed catch and total encounters (landed+released) and total mortalities (landed+release mortalities) by size and mark category in MSFs for Puget Sound, and Juan de Fuca marine sport fisheries (PSN, PSO, JDF) for 2003-2009.

Fishery	Stat Area	Year	MSF period	Retained Marked Fish	Retained Unmarked fish	Encounters Marked	Encounters Unmarked	% Marked	Legal-sized Marked fish Landed & Release Mortalities	Legal-sized Unmarked fish Landed & Release Mortalities	Sub-Legal-sized Marked fish Landed & Release Mortalities	Sub-Legal-sized Unmarked fish Landed & Release Mortalities
Puget Sound North (PSN)	Area 5/6	2003	Jul-Aug	3,417	76	4,850	8,627	36%	3,192	680	512	905
	Area 5/6	2004	Jul-Aug	3,571	5	4,598	6,365	42%	3,375	636	402	430
	Area 5/6	2005	Jul-Aug	2,025	53	3,125	3,237	49%	1,924	311	320	283
	Area 5/6	2006	Jul-Aug	3,641	25	4,494	5,095	47%	3,443	482	368	400
	Area 5/6	2007	Jul-Aug	3,972	124	5,235	3,839	58%	3,684	433	540	300
	Area 5	2008	Jul	2,819	0	3,298	2,199	60%	2,836	280	58	66
	Area 5	2009	Jul-Aug	5,958	440	16,504	20,958	44%	4,952	1009	3,079	3,223
	Area 7	2008	Feb	1,300	2	1,767	1,199	60%	1,330	158	73	31
	Area 7	2009	Feb-Apr	1,420	9	1,769	734	71%	1,452	115	28	3
Puget Sound Other (PSO)	Area 8-1, 2	2005-06	Oct-Apr	1,112	40	3,262	2,010	62%	1,038	145	504	253
	Area 8-1, 2	2006-07	Oct-Apr	1,177	33	11,781	5,853	67%	1,059	61	2,239	1,123
	Area 8-1, 2	2007-08	Nov-Apr	1,543	23	4,040	1,388	74%	1,574	96	458	176
	Area 8-1,2	2009	Jan-Apr	912	29	4,045	1,467	73%	932	37	620	276
	Area 9	2007	Jul	5,239	32	6,757	1,667	80%	5,081	191	462	110
	Area 9	2008	Jan-Apr	1,405	3	2,880	682	19%	1,362	49	330	75
	Area 9	2008	Jul-Aug	4,045	3	7,854	5,436	59%	4,124	244	653	765
	Area 9	2008-09	Nov, Jan-Apr	885	14	4,535	3,009	60%	905	38	704	567
	Area 9	2009	Jul-Aug	3,229	20	11,947	4,196	74%	3,298	211	1,651	581
	Area 10	2007	Jul	1,539	38	4,301	1,044	80%	1,451	95	640	123
	Area 10	2007-08	Dec-Jan	635	21	2,575	545	83%	551	45	468	72
	Area 10	2008	Jul-Aug	1,031	3	1,348	898	60%	1,046	79	42	77
	Area 10	2008-09	Dec-Jan	251	0	1,297	498	72%	257	5	202	92
	Area 10	2009	Jul-Aug	1,621	22	4,329	1,121	79%	1,654	34	498	203
	Area 11	2007	Jun-Sep	10,546	95	17,534	4,779	79%	10,208	468	1,736	433
	Area 11	2008	Jun-Sep	7,377	23	10,434	2,269	82%	7,440	318	494	54
	Area 11	2009	Jun-Sep	3,277	37	7,582	4,623	62%	3,348	228	767	663
BC Juan de Fuca (JDF)	Area 19, 20	2008	Apr-May	122	51	122[1]	68[1]	64%	122[2]	64[2]	5[2]	3[2]
	Area 19,20	2009	Mar-May	152	26	152[1]	105[1]	59%	152[2]	41[2]	24[2]	16[2]

[1]Legal sized Chinook

[2]IM and drop-off rates same as used in CTC Catch & Escapement report drop-off (6 9) and IM release rate (12 3)

Table 4-3. MSFs in Puget Sound TERM Sport for Chinook salmon 2003-2008. Catches of marked fish are reported where available for the calendar year; either from PSMFC catch sample database (a), preliminary catch record card estimates (b) or creel survey estimates (c). Fishery and years that were sampled are indicated by an (s) .

Fishery	Location	2003	2004	2005	2006	2007	2008
Sport	Nooksack River		5[b]	186[b]	119[b]	162[a]	25[a]
Sport	Skykomish River	177[b]	85[b]	76[b]	78[b]	637[a]	572[a]
Sport	Carbon & Puyallup River	1,287[a,s]	1,019[a,s]	1,590[a,s]	1,736[a,s]	2,525[a,s]	1,560[a]
Sport	Upper Skagit and Cascade River			173[a,s]	458[a,s]	724[a,s]	508[a]
Sport	Nisqually River			1,179[b]	3,711[b]	3,080[a]	1,568[a]

4.2 Size of MSFs

The size of a MSF relative to the total exploitation of a stock can be measured using the percentage of the total landed catch in net, sport and troll fisheries of tagged and marked PSC indicator stocks that is landed in MSFs (Table 4-4). In Puget Sound the percentage of the total landed tagged and marked catch that occurs in MSFs increases over this period for stocks in South Puget Sound, particularly in 2007, when the MSFs expanded to most areas in Puget Sound (Figure 4-3). The Skagit spring tag groups (fingerlings and yearlings) also show a high percentage of catch in MSFs, due to the terminal freshwater MSF targeting these fish, where 80-98% of the fish sampled in the Skagit MSF were tagged and marked fish (Table 4-3).

In the Columbia River, all of the tributary (terminal) sport fisheries for spring Chinook, including the Willamette, are MSF .

Table 4-4. Estimated landed catch of tagged and marked PSC Chinook Indicator Stocks in BC, Washington and Oregon in all net, troll and sport fisheries for catch years 2003-2008[^] and % of total tagged and marked catch that was landed in MSFs.

Region	Stock	2003 Total	% MSF	2004 Total	% MSF	2005 Total	% MSF	2006 Total	% MSF	2007 Total	% MSF	2008 Total	% MSF
ALASKA	Alaska Spring	2,340		3,245		5,782		5,527		4,920		4,164	
CANADA	Atnarko Summer	148		160		312		300		96		50	
	Big Qualicum	89		113		221		140		211		140	6.0%
	Chehalis (Harrison Fall Stock)	140	4.7%	293	3.0%	260		226		78		509	1.7%
	Chilliwack (Harrison Fall Stock)	1,273	1.6%	1,419	1.5%	1,195	0.9%	594	1.0%	365	2.1%	1,027	4.0%
	Cowichan Fall	230	1.1%	274	0.6%	184	2.0%	174		49		140	
	Dome Creek Spring	126		1		161		14		10		93	
	Kitsumkalum Summer	196		559		434		299		439		698	
	Lower Shuswap River Summers	617		600		457		715		127		569	
	Nanaimo River Fall	259	2.8%	253		141	2.6%	49		438	0.8%	44	
	Nicola River Spring	240		138		101		69		43		68	
	Puntledge Summer	21		26		78		64		56		50	
	Quinsam Fall	203		318		388		287		265		99	
	Robertson Creek	1,167		2,666		2,328		1,758		1,628		827	
	CANADA Total	4,709	0.8%	6,822	0.5%	6,261	0.3%	4,687	0.1%	3,806	0.3%	4,314	1.3%
COLUMBIA	Cowlitz Fall Tule	304		116	3.6%	98		54		50		64	6.4%
	Hanford Wild	642		840		359		325		175		141	
	Columbia Lower River Hatchery	1,076	1.6%	915	0.2%	348		45		40		228	
	Lewis River Wild	205	2.8%	351		190		352		112		41	
	Lyons Ferry	117		191	2.1%	145	5.1%	116		247	1.2%	1,335	0.3%
	Spring Creek Tule	3,286	0.3%	3,065	0.5%	1,408	0.1%	472	1.4%	574	1.7%	1,462	2.6%
	Columbia Summers	4,270	0.2%	3,864	0.4%	4,217		2,531	0.1%	2,145	0.2%	878	0.5%
	Upriver Brights	1,052		996	0.4%	1,499		932	0.4%	309	1.6%	418	
	Willamette Spring	1,331	1.5%	2,044	3.5%	761	17.5%	694	36.0%	422	43.1%	864	0.5%
	COLUMBIA Total	12,283	0.5%	12,382	0.9%	9,024	1.6%	5,520	4.8%	4,075	5.0%	5,431	1.0%
OREGON	Elk River	2,418		2,525		1,257		1,384		1,320		1,424	
	Salmon River	2,716		2,891		3,144		1,435		425		278	
	OREGON Total	5,134		5,416		4,401		2,819		1,745		1,702	

Table 4-4. Continued

		2003		2004		2005		2006		2007		2008	
Region	Stock	Total	% MSF	Total	% MSF	Total	% MSF	Total	% MSF	Total	% MSF	Total	% MSF
WA PS	George Adams Fall Fingerling	547	2.6%	625	5.9%	909	5.4%	551	3.9%	863	16.5%	462	14.1%
	Green River Fall Fingerling	459	6.5%	466	3.0%	305	2.5%	661	3.0%	884	7.0%	715	13.3%
	Grovers Creek Fall Fingerling	787	7.0%	743	4.7%	732	3.2%	878	5.7%	810	15.7%	360	31.7%
	Nisqually Fall Fingerling	1,154	2.8%	921	1.4%	446	3.7%	1,830	2.2%	1,906	11.1%	723	13.6%
	Nooksack Fall Fingerling	0		0		0		0		0		0	
	Nooksack Spring Fingerling	219		449		366	2.0%	326	2.0%	290	1.5%	625	4.6%
	Samish Fall Fingerling	524	0.5%	354	1.8%	525	4.0%	1,306	1.9%	1,361	2.9%	1,226	9.2%
	Skagit Spring Fingerling	224	1.1%	348	1.3%	400	11.3%	728	48.0%	1,207	36.1%	520	7.8%
	Skagit Spring Yearling	436	1.7%	446	2.3%	470	19.0%	459	56.6%	449	50.8%	229	16.0%
	Skykomish Fall Fingerling	84	5.6%	234	5.8%	202	1.8%	272	9.0%	435	5.2%	135	16.8%
	South Puget Sound Fall Yearling	5		21		226	7.0%	208	5.2%	227	23.7%	61	53.2%
	Skagit Summer Fingerling	314	0.8%	184	2.3%	311	2.1%	292	2.7%	395	0.8%	449	1.8%
	Stillaguamish Fall Fingerling	6		0		122	4.6%	158	3.2%	322	1.5%	369	22.4%
	White River Fall Fingerling	0		0		0		30	3.9%	331	22.9%	51	30.3%
	WA PS Total	4,757	3.2%	4,788	2.9%	5,016	5.8%	7,698	10.7%	9,480	14.9%	5,926	12.7%
WA CST	Hoko Fall Fingerling	219		279	1.5%	234	2.0%	232	1.6%	272	1.6%	127	
	#N/A	0		0		0		0		6	91.6%	34	
	Quinault Fall Fingerling	0		0		0		0		0		112	
	Queets Fall Fingerling	930		1,250		1,313		694		488		511	
	Sooes Fall Fingerling	356	1.3%	362	1.2%	344		156	2.4%	37		51	
	WA CST Total	1,506	0.3%	1,891	0.4%	1,890	0.2%	1,082	0.7%	803	1.2%	834	

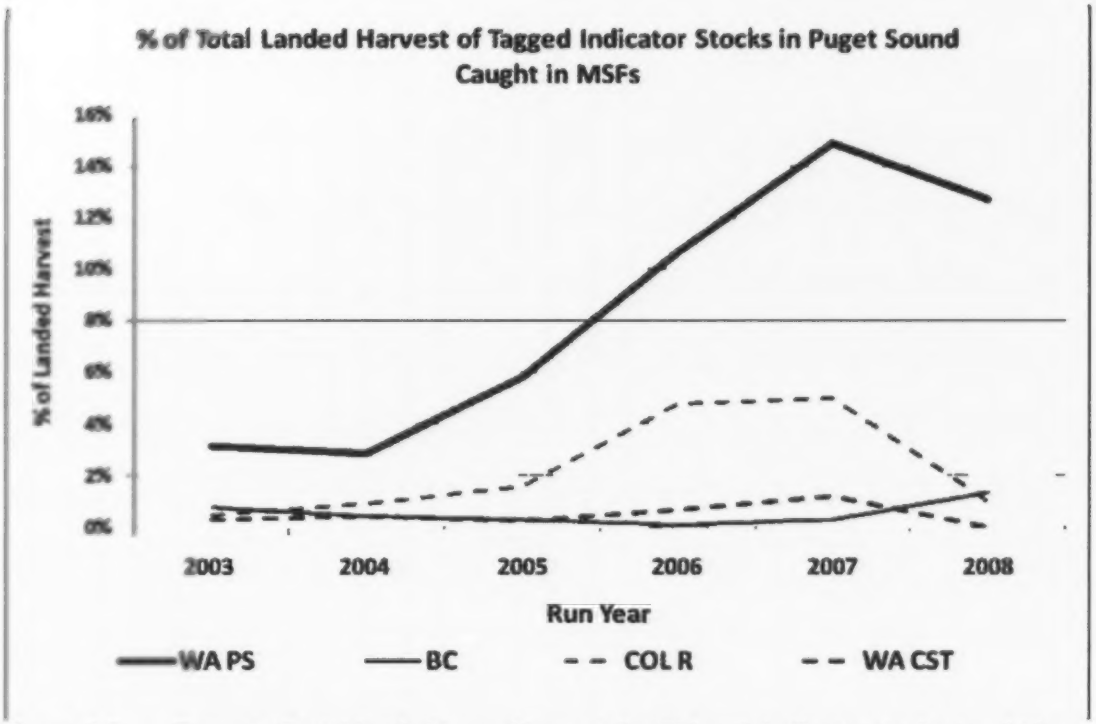

Figure 4-3. Percent of total landed tagged harvest for Chinook indicator stocks caught in MSFs for run years 2003-2008 for regions Washington Puget Sound (WAPS) and coast (WACST), British Columbia (BC) and Columbia River (COLR)..

4.3 Impact of MSFs on unmarked Chinook salmon.

PSC indicator stocks that have been double index tagged (DIT) can be used to evaluate the impact of MSFs on the unmarked stocks represented by the unmarked tag group in a DIT pair[1]. The ratio of unmarked to marked fish (λ) for a DIT group provides a relationship between the two tag groups and a measure to evaluate the impact of MSFs on the DIT stock. A comparison of the ratio of unmarked to marked measured at release and measured again at escapement provides a method to evaluate the total impact of MSFs. This is the odds ratio, $\frac{\lambda^{Escapement}}{\lambda^{Release}}$ (Agresti 1984) and it provides a measure to evaluate the impact of MSFs on a stock with DIT representation, where an odds ratio of one indicates that the ratio did not change from release to escapement and a ratio larger than one indicates a higher removal of marked fish compared to the DIT unmarked fish, which is assumed to be due to MSFs (Figure 4-4). For Puget Sound DIT stocks, Green River (SPS), Skagit springs (SKS), Skykomish (SKY) and Nisqually (NIS) show the strongest indication that there is a differential impact of MSFs on marked and unmarked DIT groups.. All of these DIT stocks except the Green River are subject to terminal sport MSFs

[1] A DIT group consists of at least two tag groups, one with the mass mark (or adipose fin clip) and one without the mark. These two tag groups are treated identically except for the mark and differences in mortality should be due to the MSFs, assuming there is no mark mortality occurring prior to recruitment to the fisheries.

which target the hatchery production including the DIT returns. For the Nisqually stock the odds ratios are significantly higher than one for all brood years after 2002.

4.4 Summary

MSFs have occurred since 2003 in Puget Sound and since 2001 in the Columbia River. Beginning in 2007, MSFs expanded to all areas of Puget Sound. Landed harvest in MSFs has increased to represent around 50% of the Puget Sound total sport harvest. For some Puget Sound and Columbia River spring stocks, MSF sport fisheries can represent a high proportion of the total fishery impacts, especially for those stocks with significant MSFs in the terminal areas. This expansion in MSFs is resulting in differential impacts on marked and unmarked components of some stocks. For those stocks subject to significant MSFs, the associated differential impacts on marked and unmarked stocks requires that the analysis of CWT data and the model structure account for these differences.

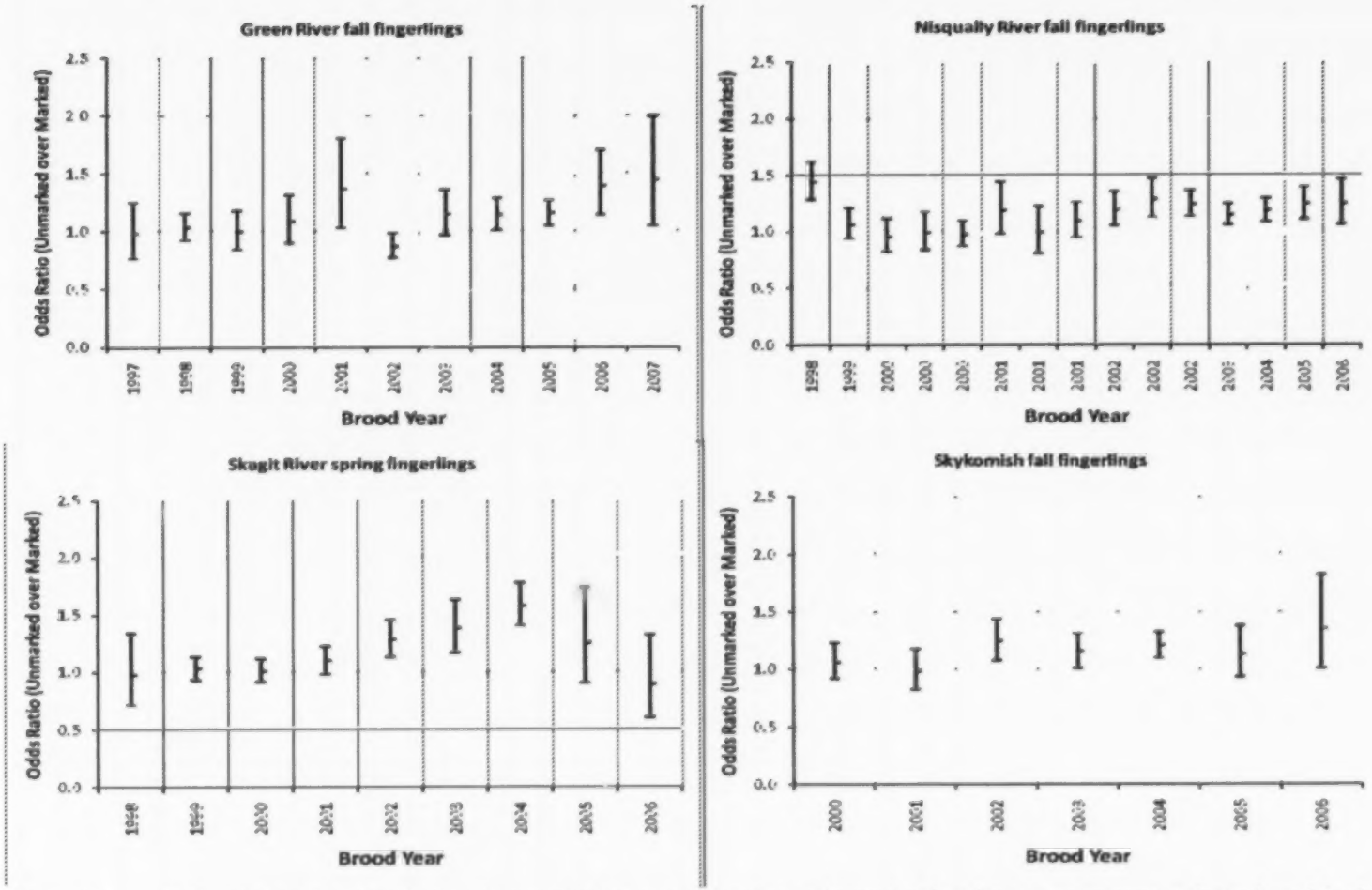

Figure 4-4. Estimated odds ratio (Ratio of unmarked to marked ratios estimated at hatchery escapement and at release) by brood year with 95% confidence intervals for Fraser River and Puget Sound DIT stocks..

5 PROGRESS REPORT ON IMPROVEMENTS TO THE COASTWIDE CWT PROGRAM

The CWT Improvement Program is a new activity identified in the 2008 Agreement. The objective of this program is to implement over a five year period, beginning no later than 2010, critical improvements to the coast-wide CWT programs operated by the Parties' respective management agencies. The bilateral CWT Improvement Team (CWTIT) is tasked with making recommendations regarding projects to improve the CWT system, including data quality, sampling or reporting efficiency, and the precision and accuracy of statistics such as abundance, exploitation rates, survival estimates, etc. for Chinook salmon. Canada implemented the program in 2009, a year earlier than in the U.S. due to differences in the timing of fiscal years. For this reason, results for the 2009 funding year are available for Canadian programs only.

5.1 Report on Canadian Projects Undertaken in Fiscal Year 2009

1) Increased CWT Marking and Purchase ($973,000 CAD)

CWTs were purchased for nearly all indicator stocks targeted for increased CWT release for the duration of the CWT improvement program. Some of these CWTs were applied to augment releases in 2009 for several of the Canadian Chinook indicator stocks (Table 5-1). Increased tagging was not possible for releases of some indicator stocks in 2009 because of time constraints on tagging, limited capacity, and resources at Big Qualicum and Quinsam hatcheries where smoltification begins in April. The tagging at DFO hatcheries is conducted by two contractors or by CDFO hatchery staff. In order to meet the incremental tagging levels additional taggers were required. A training workshop was therefore, arranged in the fall/winter of 2009. In some hatcheries additional tagging equipment and water lines were required to support additional tagging in 2010. At other hatcheries, additional brood stock was captured in the fall of 2009 to provide sufficient production to meet the incremental tagging targets.

Table 5-1. Additional tagging activities in 2009 for B.C. Chinook salmon exploitation rate indicator stocks.

Indicator Stock	Additional Tagging Activity
Taku	Additional tagging crews for wild tagging (15,000 smolts)
Stikine	Additional tagging crews for wild tagging (42,000 smolts)
Kitsumkalum	Production and tagging of 30,000 yearling smolts
Robertson	Additional tagging of 250,000 smolts
Cowichan	Additional tagging of 400,000 smolts
Harrison	Additional tagging of 200,000 smolts
Middle Shuswap	Additional tagging of 100,000 smolts
Quinsam	Equipment, staff training
Big Qualicum	Equipment, staff training
Lower Shuswap	Staff training, production planning to improve fish health, additional tagging of 50,000 smolts
Nicola	Increased production, staff training
Chilliwack	Staff training

5) Increased Deadpitch Sampling ($74,000 CAD)

CWT data quality at spawning grounds and hatcheries was improved using different strategies. The number of CWTs recovered was increased by several means. For the Quinsam, Chilliwack, Harrison, and Nicola programs, carcass sampling effort was increased by hiring additional staff or by having the existing crew work additional days during peak periods of carcass. For the Cowichan River program, an additional crew was hired to survey spawning areas outside of the standard survey reaches. For Kitsumkalum, all live fish with clipped adipose fins were sacrificed during the tag application phase of the mark recapture program; this provided 50 more observed tags in 2009 over the standard protocol (sampling rate is not yet determined). At Robertson, hatchery samples were systematically re-sampled to improve the quality assurance and quality control (QA/QC) on any missed tags.

6) Increased Head Recovery Processing ($40,000 CAD)

Increased sampling rates at spawning grounds and commercial, sport, and First Nation fisheries resulted in higher CWT dissection and lab processing activities. The quantity of samples processed in the head lab increased by about 25% over 2008 (Table 5-2).

Table 5-2. Total number of Chinook salmon heads processed from fisheries in 2008 and 2009.

Fishery	2008	2009
Northern Sport	416	738
Central Sport	9	253
West Coast Vancouver Island Sport	2,633	4,093
Alberni Canal Sport	23	23
Johnstone Strait Sport	119	162
Georgia Strait North Sport	134	65
Georgia Strait South Sport	535	837
Freshwater Sport	119	74
Northern Troll	1,167	2,152
Northwest Vancouver Island Troll	464	368
Southwest Vancouver Island Troll	2,016	656

Further, additional samples resulted from a) DIT non-AFC sampling established in the Chilliwack river escapement program to perform field testing of 'upgraded' wands and acquire additional data for DIT analysis; b) improved representative sampling of the freezer troll fleet in Northern BC and West Coast Vancouver Island troll fisheries, c) Area 8 First Nations and commercial net fishery sampling as part of the Atnarko Exploitation Rate Indicator (below), and d) increased escapement sampling rates.

Significant attempts were made in 2009 to improve the random and representative sampling rate of the freezer troll component ('frozen at sea' landings) of the Northern Troll fishery. The freezer troll landings contributed 74% of the total Northern Troll catch in 2008 and 76% in 2009. In both years, 50% of the freezer troll fleet was required as a condition of license to retain heads from all kept Chinook. A sampling rate of 50% should be observed if all landings met QA/QC standards that were also established. The QA/QC standards address such issues as 'head cut quality' and the closeness in match between the number of heads and number of bodies counted from the same landing. The sampling rate actually achieved was 14% in 2008 after exclusion of

landings that failed the QA/QC criteria. This was increased to 19% in 2009. Further improvements in the final achieved sampling rate are planned for 2010

7) Programmer ($80,000)

A programmer was hired for a term contract of 4 months to address issues related to improving CWT data quality, processing, and accessibility of CWT data starting in early September 2009. The staffing process for a full-time position was completed in March 2010. Until the full-time position was filled, existing staff also worked on high priority projects such as improving data quality and managing new streams of head recoveries (e.g. First Nations, Atnarko indicator) during the fall and winter of 2009 to improve data quality, completeness, and accessibility of CWT data. These improvements were reflected in data submitted to the US-based Regional Mark Information System (RMIS) through PSC Data Sharing commitments.

8) Sport and First Nation CWT Recovery Improvements ($87,000 CAD)

Sport Fisheries:

CDFO introduced several measures in 2009 with the intent to increase the voluntary head submission rate from recreational fisheries and to improve the data associated with the Sport Head Recovery Program (SHRP). These include:

- Public relations/outreach initiatives – attendance at stakeholder meetings to increase profile and awareness of the SHRP and solicit feedback.
- Expansion of the south coast BC region creel program to include opportunistic direct visual sampling of CWTs and increased communication with recreational anglers from CDFO creel survey staff.
- Introduction of bags/boxes for head samples collected from fishing lodges and resorts
- Solicitation of advice from CDFO area staff regarding expansion of the head depot program and requirements for modifications to depot infrastructure to improve access, visibility and utility.
- Implementation of a variety of projects throughout BC to expand or improve SHRP depots (e.g. signage, maintenance, etc.).
- Development of new sport sampling standard protocols including introduction of standard data collection forms to document head depots, servicing activities at depots, and to track problems and responses to problems occurring at depots.
- Development and implementation of new minimum head depot service standards to increase service level to areas based on regional input, fishery dynamics and storage methods/capacity.
- Collaboration with CDFO area-based staff to modify head collection program to make improvements in remote areas (Northern West Coast Vancouver Island, North Island, Central Coast, Northern BC).

First Nations Fisheries:

Coordination and communication is ongoing with First Nations to build collaborative CWT sampling programs. Public Relations/outreach initiatives are important to improve CWT sampling in First Nations fisheries. In 2009, Mark Recovery Program (MRP) technicians/biologists attended stakeholder meetings to increase the profile and awareness of the program and solicit feedback. CDFO provided support (training, equipment, sampling forms) to

Lower Fraser First Nations to collect CWT samples from commercial and Food, Social and Ceremonial (FSC) fisheries as an integrated process in the Lower Fraser First Nations catch monitoring program. The Mid-Fraser First Nations, the Cowichan Tribes, and the Bella Coola Tribes have expanded their First Nation fishery catch monitoring program to collect CWT samples and improve the precision of catch estimates. Additional work commenced with Alberni Inlet/Somass First Nations to develop capacity for collaboration in the collection of CWTs from commercial and FSC fisheries. Sampling procedures, forms, data entry and programming were modified to support these new data sources.

9) Sport and First Nation CWT Recovery Coordinator ($71,000 CAD)

A full time technician was hired to coordinate the collection of heads from CWT marked salmon encountered in all sport and First Nations fisheries. Existing staff and contractors performed extra duties to increase head recoveries in sport and First Nations fisheries as described above in item 5.

10) Atnarko Exploitation Rate Indicator ($135,000 CAD)

The spawning escapement estimation program was completed successfully. Sample sizes in the tagging and carcass recovery phases exceeded the CTC data standards for escapement indicator stocks (spawning population estimate CV less than 15%). 925 Chinook were tagged and 2,630 carcasses were examined for marks, of which 220 were marked. The dead pitch sampling rate was 18% for males, 37% for females, and 20% for jacks. In total, there were 9,469 adult male and female spawners (CV = 6%), and 1,532 jacks (CV = 17%).

Sampling the Area 8 commercial gillnet fishery was satisfactory. Total catch by the end of July was 4,069 Chinook and 1,399 (34%) were sampled for CWTs, with 110 CWT recovered. Unfortunately, no fish were sampled during the fishery opening in the first week of July due to miscommunication with fish processors in Vancouver. CDFO discussed the importance of this circumstance with the processors and measures were taken to prevent the situation from occurring again.

The Bella Coola River First Nation fishery sampling was successful. Total catch was about 3,763 Chinook and 3,346 were examined for fin clips, with 58 snouts collected for CWT dissection.

The creel survey program was satisfactory at interviewing anglers for catch rates and CWT sampling. About 200 anglers were interviewed among 370 anglers counted. . The effort survey, however, was unsuccessful due to high water levels. Large numbers of shore-access anglers during the high water periods were not visible during the aerial surveys. This was because anglers were hidden by trees. The preliminary catch estimate is about 550 fish.

The scale age validation has large samples of paired scales and CWTs collected in terminal fisheries and the spawning grounds to improve aging accuracy of mature fish. The wild smolt age sampling program, however, was cancelled in 2009 because contractors could not be arranged on short notice.

5.2 Canadian Projects Undertaken in Fiscal Year 2010

The CWTIT was established on November 13, 2009, per the Terms of Reference from the PSC entitled *Pacific Salmon Commission: Bilateral Approach to Implementation of Improvements to the Coast-wide Coded Wire Tagging (CWT) Program*. Canadian and US CWTIT members met three times during this funding cycle to coordinate reporting and selection of proposals for 2010.

Projects were evaluated by the CWTIT on the basis of those providing the most perceived benefits to the CWT program for the associated cost. Table 5-3 provides a summary of the recommended projects by project category. Project categories are based on the themes specified in PSC Technical Report 25, An Action Plan in Response to Coded Wire Tag (CWT) Expert Panel Recommendations 2008.

The projects recommended by Canada represent a complete expenditure of the $1.5 million available under this program for 2010. Projects identified in the list of recommended Canadian projects were not ranked because they are a continuation or expansion of priority projects initiated in 2009-10. All but one, are requesting multi-year funding. One project, 'Purchase of a Tagging Trailer', was recommended and approved for funding in 2009-10, but not implemented pending further investigation of costs and logistics. The CWTIT believes that the recommended projects will provide short- and long-term benefits to the CWT program and benefits to abundance–based management of Chinook under jurisdiction of the PST.

Table 5-3. Proposed Canadian Expenditures for 2010-11.

Project Category	TR25 Issue	Project Title (* Multiple Year Project)	Cost
Increased CWT Marking of CN Indicators	Issue 2	Indicator Tagging*	$322,000
Increased Deadpitch CWT Recovery Effort, all Indicators	Issue 5	Indicator CWT Recovery in Escapement*	$83,500
Increased CWT Marking of CN Indicators	Issue 2	Automated Tagging Trailer Purchase*	$483,000
Data Quality, Coordination and Reporting Issues	Issue 4, 6-11, 14-15, & 17-18	Staffing MRP Programmer, QA/QC Analyst, CWT Recovery Coordinator*	$250,000
Increased Head Recovery Costs	Issues 2, 4, 5, 7	CWT Head Lab Processing and Data Management*	$95,000
Low Sample Rates in Terminal Fisheries, Sport and FN CWT recovery improvements	Issues 4&7&9&10& 11	Regional Commercial, Sport & FN Fishery CWT Recovery Improvements*	$140,000
Low Sample Rates in Terminal Fisheries, and FN CWT recovery improvements	Issue 4& 10	FN Fishery CWT Recovery Improvements*	$37,000
Uncertainty in Estimates of Escapement or Terminal Fishery Catch	Issue 1& 6	Atnarko Chinook CWT Indicator Stock*	$84,500
Uncertainty in Catch and Low Sample Rates in Terminal Fisheries	Issue 4& 6	Atnarko River Sport Fishery CWT Sampling & Creel Survey*	$5,000
		Grand total	**$1,500,000**

The CWTIT has been asked to identify projects that affect CWT programs in other agencies in Canada and the U.S. Increased CWT releases by CDFO will increase CWT recoveries in U.S. fisheries. Preliminary analysis, based on recent tagging rates, suggest an additional 493-533 CWTs will be recovered from U.S. fisheries and 824-986 from Canadian fisheries.

5.3 U.S. Projects Undertaken in Fiscal Year 2010

A total of 12 U.S. projects were funded in FY 2010 (Table 5-4) for a total of $1,494,433. These projects are described below. Each description includes the CWT issue listed in the PSC CWT Workgroup Tech Report 25 (PSC 2008) that the program is intended to address (Table 5-5)

1) Oregon CWT Data Reporting System ($410,000 USD)
Progress through 30 November
TR 25 Issue (Primary): 13, 14, 15, 17, 18

Objective was to replace the antiquated ODFW CWT reporting system to increase accuracy, timeliness and accessibility to CWT data for Oregon fisheries, escapements and hatcheries. Purchasing of new data loggers was included, which will match those of WDFW. This is an 18-month grant. **Progress**: the project is on target to finish by Oct., 2011 and is about one-third complete. Four staff of the contractor and 5 staff of ODFW are involved and the path taken appears to be professional and proceeding well. Contemporary products from Microsoft are being used, which are common and supported. ODFW will replace their fish-ticket reporting system at the same time. **Improvement**: The project will eliminate the delays, omissions and sometimes poor quality of past data and reporting will be five months earlier. **Success very likely**. No future request is anticipated for this project.

2) Washington CWT Data Reporting System ($235,519 USD)
Progress through 30 November
TR 25 Issue (Primary): 13

Objectives were to replace the CWT reading system and upgrade a majority of the WDFW CWT reporting system to increase accuracy, timeliness and accessibility to CWT data for Washington fisheries, escapements and hatcheries. This is a 12-month grant. **Progress**: the project is on task to finish by June 30, 2011 and is one-third complete. Replacement of the old method of reading CWTs via bioscopes (the first third of the project) has been completed successfully and is two times faster and more accurate. **Improvement**: The project will improve accuracy and timeliness of reporting, to "near real-time reporting". **Success likely**. No future request is anticipated for this project.

3) SEAK Seine CWT Expansion Strata ($28,845 USD)
Progress through 30 November
TR 25 Issue (Primary): 7

Objectives were to redo the reporting strata for the seine fishery in SEAK in order to be able to use samples from mixed districts, reduce strata with few or no fish sampled, and provide more

accurate CWT data for this fishery. This is a 12-month grant. **Progress**: the project is two-thirds complete. By combining statistical weeks into bi-weekly periods and by combining some districts, past sampling numbers were boosted 10-15% and unsampled strata decreased substantially. **Improvement**: The project will improve accuracy and precision of Chinook CWT data for SEAK, both past and future. **Success-Yes**. No future request is anticipated for this project.

4) SEAK Tag Lab Increased Heads ($64,980 USD)
Progress through 30 November
TR 25 Issue (Primary): 7

Objectives were to provide funds to cover a portion of cost the associated with the increased number of "NO TAGS" in heads shipped to the SEAK CWT Lab, for freight and personnel. This is a 12-month grant. **Progress**: the project is two-thirds complete. The occurrence of heads from Chinook with ad-clips, but without CWTs has increased from 10% to over 50% in the past few years in most SEAK fisheries due to mass marking in the WA, OR and ID. **Improvement**: The project helped maintain the timeliness and accuracy of CWT data from Chinook caught in SEAK. **Success-Yes**. Future requests are anticipated for this project.

5) Stikine River Smolt Tagging ($121,264 USD)
Progress through 30 November
TR 25 Issue (Primary): 1, 2

Objectives were to tag wild Chinook smolts in the Stikine River in spring 2011 (1st US funding, 3rd Canada), to subsequently estimate total adult and smolt production, exploitation, survival and provide run reconstruction for TBR and CTC work. Note that this is a joint stock assessment project and Canada CWTIT funds supported part of this project in 2009 and 2010. No surrogate hatchery exists. **Progress**: About 44,000 wild smolts were tagged with CWTs in 2010 with joint efforts and we expect similar success in 2011 due to improvements in capture methodology. **Improvement**: This project will provide high-quality data for which to manage the terminal run with Canada and account for harvest sharing, and to estimate parameters directly from wild-stock tagging. **Success-Yes**. Future requests are anticipated for this project.

6) Chilkat River Smolt Tagging ($91,119 USD)
Progress through 30 November
TR 25 Issue (Primary): 1, 2

Objectives were to tag wild Chinook smolt in the Chilkat River in fall 2010, to subsequently estimate total adult and smolt production, exploitation, survival and provide run reconstruction for the CTC and ADF&G. No surrogate hatchery exists. **Progress**: About 38,000 wild Chinook were tagged with CWTs in fall 2011, which is a record for this stock. **Improvement**: This project will provide high-quality data for this wild stock and use as a CTC ERA stock. **Success-Yes**. Future requests are anticipated for this project.

7) Elk River Tagging, Creel and Escapement ($112,565 USD)
Progress through 30 November
TR 25 Issue (Primary): 1, 3

Objectives were to tag Chinook from the Elk River Hatchery, the proposed mid-Oregon CWT indicator stock, to estimate freshwater harvest and escapement and sample them for CWTs. All aspects of the project were still in progress. **Progress**: It appears the tagging goal (200,000) will be met next May and completion of the in river work will likely provide precise estimates of in river harvest, escapement and expansions for CWTs. **Improvement**: This project will likely provide high quality data for this mid-Oregon Coast stock and permit use as a CTC ERA stock. **Success-likely**. Future requests are anticipated for this project.

8) Lower Columbia River Esc. CWT Expansions ($20,112 USD)
Progress through 30 November
TR 25 Issue (Primary): 6

Objectives are to develop sampling designs for CWT recoveries in the lower Columbia River and to estimate hatchery and wild components within stocks. **Progress**: This project has not started and is planned for 2011. **Improvement**: This project should provide more representative expansions of CWTs from LCR Tule stocks on the spawning grounds. **Success-unknown**. Future requests are unknown.

9) SEAK—Wanding to Reduce the Number of NO TAGs Shipped ($42,580 USD)
Progress through 30 November
TR 25 Issue (Primary): 7

Objective was to purchase 6 hand-held wands to reduce the number of heads shipped to the Alaska Tag Lab from ad-clipped Chinook, but without CWTs, i.e. NO TAGs, in the SEAK winter troll fishery, after training and quality control tests were completed. A pilot study will be conducted on a portion of the winter troll fishery to detect CWTs in Chinook with adipose fins. **Progress**: This project is one-half done; 2,663 fish were sampled, and of 384 fish with ad-clips, 195 signaled positive. Validation is underway. **Improvement**: This project will keep sampling rates higher by improving sampling efficiency. **Success-Yes**. Future requests are unknown.

10) SEAK—Increased Sampling in Net and Terminal Fisheries ($43,408 USD)
Progress through 30 November
TR 25 Issue (Primary): 4,7

Objectives were to increase the sampling rates in commercial net (seine and gillnet) and terminal commercial fisheries, by funding additional port samplers in three ports. **Progress**: Sampling for this project was completed during 2010 and rates were increased in most fisheries; however, low catches of Chinook in purse seine fisheries hampered some efforts. **Improvement**: Higher sampling rates in specified fisheries. **Success-Yes**. Future requests are unknown.

11) Puget Sound Freshwater Sport Sampling ($182,455 USD)Progress through 30 November
TR 25 Issue (Primary): 4, 6

Objectives were to increase the sampling rates in freshwater sport fisheries in Puget Sound and to develop an indirect method for estimation of the number of CWTs present in these fisheries in

the past and future. Intensive creel surveys were conducted on 4 rivers (Skagit, Skokomish, Nisqually and Skykomish) to estimate total harvest, effort, CWTs, marked rate, unmarked mortality and to collect biological data. **Progress**: Sampling for this project was completed during 2010 and results will be reported next spring. **Improvement**: Higher sampling rates in specified fisheries. **Success-Yes for direct sampling**. Future requests are anticipated.

12) Decision Theoretic Tool for Sampling and Marking ($141,586 USD)
Progress through 30 November
TR 25 Issue (Primary): Chapter 6

Objective was to develop a decision-theoretic tool to simultaneously analyze interdependencies between investments in marking and sampling. **Progress**: Contract was not in place until 9/20/2010. Contribution rates (CRs) (rather than harvest rates) have been developed, enabling isolation of recoveries, release size, survival rate to age 2, sample rate and uncertainty in catch or escapement. Base period ERs have been converted to CRs, with scalars of individual fisheries. Algorithms have been developed to adjust CRs in response to HR scalars under steady-state conditions. R-code to analyze effects of changes in CWT tagging and recovery programs has been developed to replicate the single-stock tool described in TR 25. R-code to expand to multiple stock simulations, R-Code optimization, cost vs. sampling rate, release size and sampling rate to achieve the desired precision in ERs has been developed. A user interface is under design and development. **Improvement**: Tool to guide funding decisions regionally and in PST area. **Success-likely**. Future requests are not anticipated.

Table 5-4. U.S. CWT Improvement Projects FY2010.

Project Category	TR25 Issue(2)	Project Title	Cost ($USD)
Database reporting/improvement	13, 14, 15, 17, 18	Oregon CWT Data Reporting System	$410,000
Database/reporting Improvement & CWT Reading	13	Washington CWT Data Reporting System	$235,519
Database reporting/improvement	7	SEAK Seine CWT Expansion Strata	$28,845
Addressed cost of NO TAGs in SEAK	7	SEAK Tag Lab Increased Heads	$64,980
Wild Stock tagging with no hatchery indicator	1,2	Stikine River Smolt Tagging	$121,264
Wild Stock tagging with no hatchery indicator	1,2	Chilkat River Smolt Tagging	$91,119
Hatchery Stock tagging, Creel and Esc. estimation and sampling	1,3	Elk River Tagging, Creel and Esc	$112,565
Develop methods for esc. CWT expansions in the lower CR, mostly Tules	6	Lower Columbia River Esc. CWT Expansions	$20,112
Wand ad-clipped Chinook in SEAK Winter Troll Fishery	7	SEAK—Wanding to Reduce the Number of NO TAGs Shipped	$42,580
Sampling in fisheries with low sampling rates	4,7	SEAK—Increased Sampling in Net and Terminal Fisheries	$43,408
Sampling in fisheries with low sampling rates	4,6	Puget Sound Freshwater Sport Sampling	$182,455
Modeling Tool to guide funding decision	Ch 6	Decision Theoretic Tool for Sampling and Marking	$141,586
		GRAND TOTAL	$1,494,433

Table 5-5. Key to issues in PSC Technical Report 25.

TR 25 Issue No.	Description
1	Incomplete and inconsistent representation of production regions
2	Determination of tagging levels
3	Representation of hatchery production
4	Low sample rates in terminal fisheries
5	Low sample rates in escapements
6	Uncertainty in estimates of escapement or terminal fisheries
7	Low sample rates in highly mixed stock fisheries
8	Uncertainty in estimates of catch in high mixed stock fisheries
9	Non-representative sampling
10	Incomplete coverage of fisheries or escapement
11	Voluntary sport fishery sampling programs
12	Sampling methods to facilitate sampling of mark selective fisheries and CWT processing
13	Timeliness of reporting
14	Incomplete/no exchange of CWT data
15	Inter/intra-agency coordination
16	Unclear authority to establish and enforce standards
17	Updating data is difficult and updates cannot be tracked
18	Validation is inadequate
Chapter 6	Decision Theoretic Tool

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7 APPENDICES

Appendix A. Relationship between exploitation rate indicator stocks, escapement indicator stocks, model stocks, and additional management action stocks identified in the PST annex.

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Appendix A.1 Indicator stocks for Southeast Alaska and Transboundary Rivers.

Area	Annex Stock Group[1]	Annex Indicator Stocks	Run Type	Escapement Indicator Stock	Escapement Objective	Model Stock	Escapement Goal in Model	Exploitation Rate Indicator Stock	CWT Acronym
SEAK/TBR			Spring	Taku	19,000–36,000	Alaska South SE	9,110	NA	AKS
				Stikine	14,000–28,000			NA	
Yakutat				Situk	500–1,000			NA	
				Alsek	3,500–5,300			NA	
SEAK Northern Inside				Chilkat	1,750-3,500			NA	
				King Salmon	120–240			Alaska Spring (Little Port Walter, Neets Bay Hatchery, Whitman Lake Hatchery, Carroll Inlet Releases, Deer Mountain Hatchery, Crystal Lake Hatchery)	
SEAK Central Inside				Andrew Creek	650–1,500				
SEAK Southern Inside				Unuk	1,800–3,800				
				Chickamin	450–900				
				Blossom	250–500				
				Keta	250–500				

[1] SEAK fisheries will be managed to achieve escapement objectives for Southeast Alaska and Transboundary River Chinook stocks
NA = not available

Appendix A.2 Indicator stocks for Canada.

Area	Annex Stock Group	Annex Indicator Stocks	Run Type	Escapement Indicator Stock	Escapement Objective	Model Stock	Escapement Goal in Model	Exploitation Rate Indicator Stock	CWT Acronym
NBC-Area 1	North / Central British Columbia	Yakoun	Summer	Yakoun	Escapement goal range by stock	North / Central BC	117,500	Kitsumkalum	KLM
NBC-Area 3		Nass	Spring/Summer	Nass					
NBC-Area 4		Skeena		Skeena					
CBC-Area 8			Spring	Dean					
CBC-Area 9			Spring/Fall	Rivers Inlet					
WCVI	West Coast Vancouver Island Falls	Artlish, Burman, Gold, Kaouk, Tahsis, Tashish, Marble	Fall	WCVI Aggregate (Artlish, Burman, Kaouk, Tahsis, Tashish, Marble)	Escapement goal range for aggregate	WCVI Natural	42,734	Robertson Creek	RBT
						WCVI Hatchery	6,472		
Upper Strait of Georgia	Upper Strait of Georgia	Klinaklini, Kakweekan, Wakeman, Kingcome, Nimpkish	Summer/ Fall	Upper Strait of Georgia (Klinaklini, Kakweekan, Wakeman, Kingcome, Nimpkish)	Escapement goal range for aggregate	Upper Strait of Georgia	23,300	Quinsam	QUI
Lower Strait of Georgia	Lower Strait of Georgia		Summer/ Fall			Lower Strait of Georgia Hatchery	5,318	Puntledge	PPS
								Big Qualicum	BQR
		Cowichan, Nanaimo	Fall	Lower Strait of Georgia (Cowichan / Nanaimo)	Escapement goal range for aggregate	Lower Strait of Georgia Natural	21,935	Cowichan	COW
								Nanaimo	NAN
Fraser River	Fraser Early	Upper Fraser Mid Fraser Thompson	Spring	Fraser Spring-run Age 1 2	Escapement goal range by stock	Fraser Early	93,700	Nicola	NIC
				Fraser Spring-run Age 1 3				Dome	DOM
			Summer	Fraser Summer-run Age 1 3				NA	NA
				Fraser Summer-run Age 0 3				Lower Shuswap	SHU
	Fraser Late	Harrison River	Fall	Harrison River	75,100-98,500	Fraser Late	75,100	Chilliwack	CHI

Appendix A.3 Indicator stocks for Puget Sound.

Area	Annex Stock Group	Annex Indicator Stocks	Run Type	Escapement Indicator Stock	Escapement Objective	Model Stock	Escapement Goal in Model	Exploitation Rate Indicator Stock	CWT Acronym
North/ Central Puget Sound	North Puget Sound Natural Springs	Nooksack	Spring	Nooksack	Escapement goal range by stock	Nooksack Spring	4,000	Nooksack Spring Fingerling Nooksack Spring Yearling	NSF NKS
		Skagit		Skagit spring				Skagit Spring Fingerling Skagit Spring Yearling	SKF SKS
	North Puget Sound Natural Summer/Falls	Nooksack	Summer/ Fall		Escapement goal range by stock	Nooksack Fall	11,923	Samish Fall Fingerling	SAM
		Snohomish		Snohomish		Snohomish Wild	5,250	Skykomish	SKY
		Skagit group		Skagit sum/fall		Skagit Wild	9,778	Skagit Summer Fingerling	SSF
		Lake Washington		Lake Washington Falls		Puget Sound Natural Fingerling	16,966	NA	
		Green River		Green River					
		Stillaguamish		Stillaguamish		Stillaguamish Wild	2,000	Stillaguamish Fall Fingerling	STL
								Nisqually Fall Fingerling	NIS
								Univ of Washington Accelerated Fall	UWA
Hood Canal	Not an Annex stock		Fall					George Adams Fall Fingerling	GAD
South Puget Sound	Not an annex stock		Fall			Puget Sound Hatchery Fingerling	24,769	South Puget Sound Fall Fingerling	SPS
						Puget Sound Hatchery Yearling	9,136	South Puget Sound Fall Yearling	SPY
								Squaxin Pens Fall Yearling	SQP
			Spring					White River Spring Yearling	WRY

NA = not available

Appendix A.4 Indicator stocks for the Washington Coast.

Area	Annex Stock Group	Annex Indicator Stocks	Run Type	Escapement Indicator Stock	Escapement Objective	Model Stock	Escapement Goal in Model	Exploitation Rate Indicator Stock	CWT Acronym
WA Coast/ Juan de Fuca	Washington Coastal Fall Naturals	Hoko	Fall	Hoko	Escapement goal range by stock	Washington Coastal Wild	21,500	Elwha Fall Fingerling	ELW
								Hoko Fall Fingerling	HOK
		Grays Harbor		Grays Harbor Fall				NA	
		Queets		Queets Fall				Sooes Fall Fingerling	SOO
		Hoh		Hoh Fall				NA	
		Quillayute		Quillayute Fall				NA	
		Queets		Queets Fall				Queets Fall Fingerling	QUE
	Not an annex stock		Fall			Washington Coastal Hatchery	6,703	NA	
	Not an annex stock		Spring	Grays Harbor Spring				NA	
	Not an annex stock		Spring/ Summer	Queets Spring/Summer				NA	
				Hoh Spring/Summer				NA	
	Not an annex stock		Summer	Quillayute Summer				NA	

NA = not available

Appendix A.5. Indicator stocks for Columbia River and Oregon Coast.

Area	Annex Stock Group	Annex Indicator Stocks	Run Type	Escapement Indicator Stock	Escapement Objective	Model Stock	Escapement Goal in Model	Exploitation Rate Indicator Stock	CWT Acronym
Columbia River	Not an Annex stock		Spring			Cowlitz Spring Hatchery	2,500	NA	
						Willamette River Hatchery	13,500	Willamette Spring	WSH
	Columbia River Summers	Mid-Columbia Summers	Summer	Mid Columbia Summer	17,857[1]	Columbia River Summer	17,857	Columbia Summers	SUM
	Columbia River Falls		Fall			Fall Cowlitz Hat	8,800	Cowlitz Tule	CWF
						Spring Creek Hatchery	7,000	Spring Creek Tule	SPR
						Lower Bonneville Hatchery	26,200	Columbia Lower River Hatchery	LRH
		Upriver Brights		Columbia Upriver Bright		Columbia Upriver Brights	40,000	Columbia Upriver Bright	URB
								Hanford Wild	HAN
		Deschutes		Deschutes River Fall				NA	
						Lyons Ferry	3,430	Lyons Ferry	LYF
						Mid Columbia River Brights	12,500	NA	
		Lewis River		Lewis	5,700	Lewis River Wild	5,700	Lewis River Wild	LRW
North Oregon Coast	Far North Migrating Oregon Coastal Falls	Nehalem	Fall	Nehalem	6,989	Oregon Coast	62,382	Salmon River	
		Siuslaw		Siuslaw	12,925				
		Siletz		Siletz	2,944				
Mid-Oregon Coast	Not an Annex stock		Fall	Umpqua				NA	
				Mid South Oregon Coastal Falls				NA	

[1] Interim goal for modeling based on stock recruitment analysis of model data
NA – not available

Appendix B. ISBM indices.

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Appendix B.1. ISBM Indices for Canadian fisheries, CWT-based exploitation rate analysis (1999-2008).

	Escapement Indicator Stocks	CWT Indices[1]									
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Lower Strait of Georgia	Cowichan	0 517	0 196	0 260	0 247	0 363 [6]	0 284	0 132	0 191	0 043	0 242
	Nanaimo[5]	0 163	0 154	0 260	0 247	NA [7]	NA	NA	NA	NA	NA
Fraser Late	Harrison River[3]	0 112	0 073	0 090	0 105	0 055 [9]	0 032	0 058	0 032	0 035	0 031
North Puget Sound Natural Springs	Nooksack, Skagit	0 183 NA [2]	1 176 NA	0 040 NA	0 023 NA	0 046 NA	NA NA	NA NA	NA NA	NA NA	NA NA
Upper Strait of Georgia	Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish	0 021	0 123	0 040	0 063	0 006	0 018	0 028	0 079	0 268	0 073
Fraser Early (spring and summers)	Upper Fraser, Mid Fraser, Thompson	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
West Coast Vancouver Island Falls	WCVI (Artlish, Burman, Kauok, Tahsis, Tashish, Marble)	0 431	0 083	0 060	0 248	0 496 [10]	0 488	0 267	0 267	0 906	0 652
Puget Sound Natural Summer / Falls	Skagit	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Stillaguamish	0 194	0 111	0 145	NA	NA	0 027	0 057	0 074	0 192	NA
	Snohomish	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Lake Washington	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Green River	0 171	0 154	0 350	0 323	0 328	0 162	0 085	0 109	0 076	0 106
North / Central B C	Yakoun, Nass, Skeena, Area 8	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Washington Coastal Fall Naturals[4]	Hoko, Grays Harbor, Queets, Hoh, Quillayute	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Columbia River Falls[4]	Upriver Brights	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Deschutes	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Lewis[3]	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Columbia R Summers[4]	Mid-Columbia Summers[3]	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Far North Migrating OR Coastal Falls[4]	Nehalem[3], Siletz[3], Siuslaw[3]	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA

1 The CWT-based estimates, not the model estimates, are to be used in postseason assessments.
2 NA means not available because of insufficient data (lack of stock specific tag codes, base period CWT recoveries, etc).
3 Stock or stock group with an agreed CTC escapement goal.
4 Stock group not in Annex Attachment IV.

5 Indices for the Nanaimo stock are calculated from CWT recoveries for Cowichan; differences between Nanaimo and Cowichan stock indices are due to differences in terminal harvest.
6 An inconsistency was discovered between the approaches used to calculate the model-based and CWT-based indices. The former included harvest rates for terminal sport while the latter did not. Terminal sport harvest rates are now included in the calculation of both indices. Further review is yet required to determine whether the base period terminal sport harvest rates obtained from analyses of Big Qualicum CWT recoveries adequately represent impacts that would have occurred on Cowichan Chinook.
7 Several problems have been identified in the approach previously used to calculate the CWT-based indices for Nanaimo Chinook; indices for this stock will not be reported as their utility is questionable.
8 Although model-based indices were previously calculated separately for Cowichan and Nanaimo Chinook; these did not adequately represent impacts on either LGS stock. This is because the model-based data represent an aggregate of the two stocks and methods do not currently exist to correctly disaggregate these data for calculation of the ISBM values. Until such methods are developed, a single index value only will be reported representing the aggregate.
9 The terminal sport harvest rates for Chilliwack Hatchery Chinook, the indicator stock, were removed from the calculation for the Harrison River naturals this year because sport harvest has been essentially zero on the natural population.
10 A review of the approach used to calculate both the CWT-based and model data-based indices for the WCVI naturals was carried out in 2008. A similar approach was adopted for both indices but due to modifications to the formerly used procedures, the historical time series of values was updated.
11 For the Canadian ISBM fisheries, both Lake Washington and Green are assumed to have the same distribution and thus the same index value.
12 ISBM indices for WCVI naturals are based on information from Robertson Cr. hatchery stock, including terminal harvest rates. Prior to this report, harvest rates for terminal net and sport fisheries were treated as equal between the naturals and the hatchery indicator. However, this ignored the fact that since 1999, there has been no terminal net harvest of the vast majority of natural stocks on the WCVI. Consequently, indices for WCVI naturals were adjusted to reflect this zero terminal net harvest rate. In addition, some inconsistencies were noted in the treatment of terminal harvest rates between the model and CWT indices for this stock group. These inconsistencies were eliminated.
13 The US CWT based indices for Fraser Late from 2005 onward do not accurately reflect the impacts on the natural stock because a considerable proportion of the recoveries in the US fisheries have occurred in mark-selective fisheries in which only clipped hatchery-origin fish are retained. The US indices since 2005 indicate greater impacts than would have occurred on the natural stocks and are no longer being reported.
14 NC means that the current model assumes the stock is not caught in U.S. ISBM fisheries.

Appendix B.2. ISBM Indices for U.S. fisheries, CWT-based exploitation rate analysis (1999-2008).

	Escapement Indicator Stocks	CWT Indices[1]									
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Washington Coastal Fall Naturals	Hoko	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Grays Harbor	0 430	1 630	0 860	0 540	0 150	0 530	0 560	0 520	0 790	1 270
	Queets	1 000	0 850	1 440	0 840	0 850	0 840	2 050	0 600	1 050	0 610
	Hoh	1 540	2 750	1 660	0 950	1 340	1 220	1 030	1 290	2 230	1 270
	Quillayute	1 300	2 470	1 480	1 420	0 990	1 150	1 030	1 180	1 470	1 270
Columbia River Falls	Upriver Brights	1 370	2 530	1 350	1 320	1 430	1 740	1 780	3 080	3 100	1 830
	Deschutes	0 510	0 710	0 520	0 590	0 049	0 510	0 670	0 580	0 510	1 860
	Lewis[3]	0 000	0 360	0 580	0 560	1 030	0 170	0 980	1 330	0 790	0 630
Puget Sound Natural Summer / Falls	Skagit	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Stillaguamish	0 120	0 040	0 890	NA	NA	0 010	0 220	0 080	0 120	NA [2]
	Snohomish	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Lake Washington	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Green R	0 500	0 700	1 180	1 070	1 030	1 010	0 170	0 370	0 380	0 280
Fraser Late	Harrison River[3]	0 470	0 130	0 310	0 410	0 640	0 320	NA [13]	NA	NA	NA
Columbia R Summers	Mid-Columbia Summers[3]	1 640	4 820	5 320	7 250	10 040	2 690	6 080	0 480	1 840	6 800
Far North Migrating OR Coastal Falls	Nehalem[3]	1 960	1 970	1 940	2 170	3 110	1 800	2 000	3 480	2 010	0 660
	Siletz[3]	0 820	1 160	1 190	1 310	1 590	2 290	1 190	2 340	1 600	0 660
	Siuslaw[3]	1 220	2 450	2 180	2 560	3 820	1 030	1 630	2 230	1 000	0 660
North Puget Sound Natural Springs	Nooksack	0 440	0 000	0 040	NA [2]	NA	NA	NA	NA	NA	0 210
	Skagit	NA [2]	NA	NA	1 120	NA	NA	NA	NA	NA	NA
Lower Strait of Georgia[4]	Cowichan, Nanaimo[5,7]	NA [2] NA [2]	0 690 0 690	11 350 11 350	5 780 5 780	4 990 4 990	7 250	10 230	15 070	1 550	4 040
Upper Strait of Georgia[4]	Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fraser Early (spring and summers)[4]	Upper Fraser, Mid Fraser, Thompson	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
West Coast Vancouver Island Falls[4]	WCVI (Artlish, Burman, Kauok, Tahsis, Tashish, Marble)	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
North / Central B C	Yakoun, Nass, Skeena, Area 8	NA [2]	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.3. ISBM Indices for Canadian fisheries, from the Chinook model (1999-2010) used to establish the AI for each year. Order of the stock groups corresponds to Annex 4, Chapter 3, Attachment IV and V of the PST 1999 Revised Annexes.

	Escapement Indicator Stocks	Model Indices											
		1999 CLB0107	2000 CLB0107	2001 CLB0107	2002 CLB0206	2003 CLB0308	2004 CLB0404	2005 CLB0506	2006 CLB0604	2007 CLB0705	2008 CLB0807	2009 CLB0907	2010 CLB1007
LowerStrait of Georgia	Cowichan	0 304	0 232	0 325	0 541	0 490	0 593	0 381 [8]	0 590 [8]	0 240 [8]	0 315 [8]	0 494 [8]	0 203 [8]
	Nanaimo[5]	0 209	0 113	0 246	0 190	0 498	0 695						
Fraser Late	Harrison River[3]	0 309	0 198	0 336	0 302	0 352	0 719	0 332	0 294	0 211	0 208	0 245	0 138
NorthPuget SoundNatural Springs	Nooksack, Skagit	0 233 NA [2]	0 156 NA	0 241 NA	0 195 NA	0 251 0 251	0 273 0 273	0 314 0 314	0 993 0 993	0 563 0 563	0 470 0 470	0 988 0 988	0 568 0 568
Upper Strait of Georgia	Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish	0 174	0 118	0 314	0 272	0 649	0 971	0 649	0 584	0 146	0 622	0 128	0 122
FraserEarly (spring and summers)	Upper Fraser, Mid Fraser, Thompson	0 125	0 124	0 210	0 145	0 661	0 718	0 654	0 610	0 159	0 128	0 094	0 121
West Coast Vancouver Island Falls	WCVI (Artlish,Burman, Kauok, Tahsis, Tashish, Marble)	0 365	0 327	0 244	0 342	0 744	0 927	0 728	1 082	0 133	1 490	0 137	0 122
Puget Sound Natural Summer / Falls	Skagit	0 197	0 119	0 217	0 172	0 436	0 438	0 465	1 092	0 718	0 724	1 097	0 709
	Stillaguamish	0 355	0 234	0 469	0 375	0 513	0 567	0 587	1 166	0 821	0 796	1 123	0 791
	Snohomish	0 185	0 116	0 222	0 176	0 435	0 445	0 457	1 101	0 736	0 721	1 098	0 718
	LakeWashington	0 332	0 202	0 355	0 275	0 508	0 446	0 497 [11]	0 898	0 735	0 722	0 918	0 690
	Green River	0 333	0 202	0 356	0 275	0 508	0 466	0 497 [11]	0 914	0 752	0 721	0 919	0 670
North / Central B C	Yakoun, Nass, Skeena, Area 8	0 237	0 254	0 613	0 584	0 689	0 804	0 680	0 626	0 202	0 593	0 224	0 177
Washington Coastal Fall Naturals[4]	Hoko, Grays Harbor, Queets, Hoh, Quillayute	0 201	0 161	0 354	0 292	0 292	0 435	0 457	0 363	0 194	0 387	0 328	0 134
Columbia River Falls[4]	Upriver Brights	0 124	0 104	0 377	0 429	0 686	0 663	0 640	0 523	0 129	0 612	0 517	0 110
	Deschutes	0 124	0 104	0 377	0 429	0 686	0 663	0 640	0 523	0 129	0 612	0 517	0 110
	Lewis[3]	0 056	0 180	0 180	0 171	0 515	0 480	0 546	0 315	0 030	0 432	0 832	0 920
Columbia R Summers[4]	Mid-Columbia Summers[3]	0 109	0 085	0 144	0 198	0 352	0 333	0 406	0 335	0 119	0 361	0 285	0 084
Far North Migrating OR Coastal Falls[4]	Nehalem[3], Siletz[3], Siuslaw[3]	0 094	0 110	0 505	0 514	0 689	0 672	0 674	0 515	0 078	0 088	0 543	NA

Appendix B.4. ISBM Indices for U.S. fisheries, from the Chinook model (1999-2010) used to establish the AI for each year. Order of the stock groups corresponds to Annex 4, Chapter 3, Attachment IV and V of the PST 1999 Revised Annexes.

	Escapement Indicator Stocks	Model Indices											
		1999 CLB0107	2000 CLB0107	2001 CLB0107	2002 CLB0206	2003 CLB0308	2004 CLB0404	2005 CLB0506	2006 CLB0604	2007 CLB0705	2008 CLB0807	2009 CLB0907	2010 CLB1007
Washington Coastal Fall Naturals	Hoko	0 39	0 34	0 56	0 48	0 682	0 966	0 444	0 442	0 401	0 305	0 284	0 130
	Grays Harbor	0 440	0 430	0 450	0 840	0 494	0 573	0 222	0 544	0 504	0 45	0 404	0 382
	Quoots	0 880	0 420	0 440	1 050	1 063	0 932	1 023	1 022	1 014	1 007	0 508	0 285
	Hoh	1 390	0 730	0 760	1 260	1 208	1 214	1 499	1 493	1 111	1 457	0 981	0 987
	Quillayute	1 140	0 720	0 750	1 310	1 292	1 139	1 133	0 673	0 883	0 851	0 881	0 963
Columbia River Falls	Upriver Brights	1 020	1 090	0 990	0 910	1 022	0 906	0 734	0 814	0 726	0 701	0 798	0 801
	Deschutes	1 020	0 880	0 740	0 550	0 561	0 475	0 483	0 437	0 493	0 428	0 461	1 004
	Lewis[3]	0 110	0 160	1 700	0 930	0 851	1 008	1 058	1 861	1 466	0 436	0 470	0 505
Puget Sound Natural Summer / Falls	Skagit	0 170	0 210	0 780	0 270	0 406	0 157	0 195	0 258	0 325	0 321	0 292	0 261
	Stillaguamish	0 140	0 140	0 400	0 200	0 184	0 224	0 185	0 493	0 152	0 137	0 446	0 117
	Snohomish	0 040	0 050	0 600	0 150	0 072	0 110	0 891	0 199	0 138	0 165	0 202	0 125
	Lake Washington	0 500	0 480	0 590	1 250	0 768	0 411	0 373	0 613	0 391	0 392	0 768	0 517
	Green R	0 500	0 480	0 600	0 350	0 263	0 260	0 202	0 361	0 278	0 380	0 555	0 520
Fraser Late	Harrison River[3]	0 660	0 390	0 620	0 720	0 981	1 058	0 670	0 787	0 563	0 378	0 410	0 209
Columbia R Summers	Mid-Columbia Summers[3]	0 110	0 090	0 140	0 820	0 794	0 715	0 545	0 696	0 943	1 254	1 236	1 142
Far North MigratingOR CoastalFalls	Nehalem[3]	2 670	2 660	2 750	2 610	2 346	2 230	2 090	1 912	2 183	1 968	2 003	0 916
	Siletz[3]	1 810	1 790	1 870	1 330	1 302	1 288	1 233	1 237	1 399	1 592	1 217	0 698
	Siuslaw[3]	0 940	0 930	0 950	3 340	2 856	2 816	2 643	1 095	1 241	0 971	1 632	2 028
NorthPuget SoundNatural Springs	Nooksack	0 150	0 200	0 010	0 000	0 121	0 974	0 222	0 121	NA	NA	0 107	0 181
	Skagit	ID	ID	0 070	0 060	0 119	0 663	0 213	0 161	NA	NA	0 143	0 245
Lower Strait of Georgia[4]	Cowichan, Nanaimo[5]	0 170 0 170	0 210 0 210	0 480 0 480	0 220 0 220	0 452 0 452	0 915 0 915	0 407[6]	0 271[6]	0 288[6]	0 333[6]	0 367[6]	0 216[6]
Upper Strait of Georgia[4]	Klinaklini, Kakweika Wakeman,Kingcome, Nimpkish	NC[15]	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Fraser Early (spring & summer)[4]	Upper Fraser, Mid Fraser, Thompson	0 080	0 150	0 700	0 150	0 277	0 839	0 257	0 224	0 219	0 100	0 156	0 111
West Coast Vancouver Island Falls[5]	WCVI(Artlish,Burman, Kaouk, Tahsis, Tashish, Marble)	0 260	0 380	0 730	0 270	0 658	0 540	0 290	0 128	0 311	0 365	0 146	0 213
North / Central B C	Yakoun, Nass, Skeena, Area 8	NC[15]	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Appendix C. Percent distribution of landed catch and total mortality among fisheries and escapement for exploitation rate indicator stocks by calendar year.

These data result from cohort analysis of CWT recoveries for the indicator stocks; data within a row for each calendar year sum to 100%. Some changes are present in these distribution tables compared to those presented in previous reports due to changes in the CWT database. Two computational rules are used to determine whether data are reported for any particular calendar year: at least three year classes of CWT recoveries and at least 10 estimated CWTs must be available in any calendar year.

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Appendix C.1. Percent distribution of Alaska Spring reported catch among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	824	40 4%	3 9%	5 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	11 4%	38 5%
1982	2654	20 7%	5 2%	3 4%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 4%	65 7%
1983	5592	25 3%	1 3%	6 3%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 8%	60 4%
1984	10319	21 5%	2 6%	12 9%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	59 7%
1985	15884	24 4%	4 7%	11 2%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	2 3%	55 1%
1986	16246	23 5%	4 5%	11 7%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	4 1%	54 5%
1987	15950	27 2%	2 6%	6 7%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	7 9%	54 4%
1988	15058	28 1%	1 8%	9 7%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	7 3%	51 6%
1989	11305	21 6%	4 8%	8 8%	0 6%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 9%	6 0%	53 0%
1990	13877	31 4%	2 4%	9 6%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	11 1%	43 5%
1991	14133	35 2%	3 5%	9 7%	0 6%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	11 9%	38 7%
1992	6908	22 9%	6 6%	10 9%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	12 2%	46 6%
1993	5948	18 5%	3 5%	11 1%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 3%	9 1%	55 0%
1994	5370	13 9%	12 3%	12 0%	0 4%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 7%	4 1%	53 1%
1995	5935	24 5%	4 9%	11 2%	0 3%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 8%	8 4%	41 3%
1996	6135	22 2%	4 6%	14 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 2%	15 1%	37 8%
1997	5506	23 7%	4 7%	13 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 6%	18 1%	36 8%
1998	3644	24 5%	6 7%	12 6%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 3%	15 2%	36 4%
1999	5785	18 2%	2 4%	14 2%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 8%	14 0%	47 8%
2000	6320	20 0%	2 6%	12 2%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 3%	11 8%	50 7%
2001	6754	14 7%	2 2%	9 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	8 9%	63 0%
2002	5905	10 8%	1 8%	7 3%	1 0%	0 7%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	8 4%	68 0%
2003	5893	15 8%	1 7%	7 9%	0 7%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	10 1%	63 5%
2004	8322	15 6%	5 2%	5 4%	0 4%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	9 4%	63 0%
2005	7858	23 2%	5 6%	11 3%	0 3%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	19 8%	39 0%
2006	10249	32 4%	3 9%	5 8%	0 7%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	9 8%	45 3%
2007	9873	29 2%	3 1%	6 2%	0 2%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	9 8%	50 1%
2008	9050	20 3%	3 7%	4 1%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	15 5%	54 8%
1979-2008	8475	23 2%	4 0%	9 4%	0 5%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 7%	9 7%	51 0%
1979-1984	4847	27 0%	3 2%	7 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 4%	56 1%
1985-1995	11510	24 7%	4 7%	10 2%	0 7%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	7 7%	49 7%
1996-1998	5095	23 4%	5 3%	13 5%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 0%	16 1%	37 0%
1999-2008	7601	20 0%	3 2%	8 3%	0 4%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	11 7%	54 5%

Appendix C.2. Percent distribution of Alaska Spring total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	1080	46 0%	3 4%	10 9%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	9 4%	29 4%
1982	3189	29 1%	5 0%	5 5%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 0%	54 7%
1983	6815	34 4%	1 2%	8 0%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 7%	49 6%
1984	12610	29 8%	2 4%	15 8%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	48 8%
1985	19489	29 5%	8 8%	12 8%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	2 1%	44 9%
1986	19650	26 7%	10 5%	12 4%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	3 7%	45 0%
1987	18709	33 8%	4 5%	7 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	7 2%	46 4%
1988	16663	29 9%	4 2%	10 5%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	7 1%	46 6%
1989	14287	24 1%	14 2%	9 6%	0 6%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 3%	5 1%	41 9%
1990	17306	37 5%	5 5%	10 1%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	9 8%	34 9%
1991	16102	37 5%	6 4%	10 0%	0 6%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	11 0%	34 0%
1992	9931	19 8%	29 1%	9 1%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	8 9%	32 4%
1993	6788	22 2%	6 1%	12 3%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 2%	8 4%	48 2%
1994	7615	16 1%	28 2%	11 3%	0 4%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 0%	3 1%	37 5%
1995	7149	28 7%	8 3%	11 7%	0 3%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 6%	7 5%	34 3%
1996	6885	24 8%	6 3%	15 6%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 9%	14 1%	33 7%
1997	6116	25 6%	6 4%	14 1%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 4%	17 2%	33 1%
1998	4289	25 9%	10 3%	14 0%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 3%	14 1%	30 9%
1999	6729	21 7%	3 2%	17 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 0%	13 3%	41 1%
2000	7207	23 4%	4 0%	13 5%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 7%	11 4%	44 5%
2001	7308	17 4%	3 0%	10 3%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	8 7%	58 3%
2002	6429	13 1%	2 4%	9 1%	1 1%	0 8%	0 1%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 4%	8 5%	62 5%
2003	6344	18 0%	2 2%	9 5%	0 8%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	10 2%	59 0%
2004	9376	17 9%	8 7%	6 7%	0 5%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	9 1%	56 0%
2005	9282	26 4%	7 4%	13 5%	0 4%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	18 5%	33 0%
2006	11755	36 6%	4 6%	6 9%	0 7%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	9 4%	39 5%
2007	11397	33 2%	5 2%	7 1%	0 2%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 3%	9 4%	43 4%
2008	9775	22 5%	5 3%	4 5%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 3%	15 3%	50 7%
1979-2008	10010	26 8%	7 4%	10 7%	0 6%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 7%	9 0%	43 4%
1979-1984	5924	34 8%	3 0%	10 1%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 0%	45 6%
1985-1995	13972	27 8%	11 4%	10 6%	0 7%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	6 7%	40 5%
1996-1998	5763	25 4%	7 7%	14 5%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 9%	15 2%	32 6%
1999-2008	8560	23 0%	4 6%	9 8%	0 4%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	11 4%	48 8%

Appendix C.3. Percent distribution of Big Qualicum River Fall reported catch among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	4744	3 4%	0 9%	0 3%	1 7%	0 4%	2 2%	0 1%	21 2%	15 3%	9 4%	12 1%	0 0%	0 0%	0 0%	0 1%	0 3%	0 0%	0 0%	0 0%	2 8%	29 9%
1980	2734	1 4%	1 6%	0 4%	4 3%	1 4%	4 2%	0 0%	15 3%	20 1%	6 6%	12 8%	0 0%	0 1%	0 0%	0 0%	0 3%	0 2%	0 0%	0 0%	3 7%	27 7%
1981	1425	1 9%	0 3%	0 4%	1 3%	0 8%	1 5%	0 3%	17 8%	33 4%	11 4%	14 1%	0 0%	0 0%	0 0%	0 0%	0 1%	0 6%	0 0%	0 0%	4 1%	12 1%
1982	740	4 5%	0 4%	1 2%	4 5%	0 4%	4 3%	0 0%	12 7%	11 4%	5 8%	20 5%	0 0%	0 0%	0 0%	0 0%	1 1%	0 7%	0 0%	0 0%	1 6%	30 9%
1983	629	5 4%	0 3%	0 3%	4 9%	1 0%	1 1%	0 0%	13 5%	14 8%	6 8%	19 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	8 3%	23 7%
1984	497	1 4%	0 4%	0 0%	1 4%	5 8%	1 4%	0 0%	8 9%	38 8%	6 6%	9 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 6%	20 7%
1985	690	3 9%	0 3%	0 0%	1 7%	1 7%	1 4%	0 0%	1 7%	24 3%	3 8%	19 3%	0 0%	0 0%	0 0%	0 0%	2 6%	0 0%	0 0%	0 0%	9 7%	29 4%
1986	1205	1 9%	0 2%	0 0%	0 7%	2 8%	1 4%	0 0%	8 1%	30 8%	12 6%	15 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 7%	20 1%
1987	738	8 7%	0 0%	0 9%	3 9%	2 7%	4 2%	0 0%	2 0%	22 6%	2 4%	7 7%	0 0%	0 8%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	6 6%	36 6%
1988	395	2 8%	0 5%	0 0%	2 3%	1 3%	2 8%	2 0%	1 8%	25 3%	1 3%	14 9%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	0 0%	5 1%	39 0%
1989	501	4 2%	1 6%	0 6%	3 2%	1 8%	4 8%	0 0%	1 8%	19 4%	0 6%	9 2%	0 0%	0 2%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	18 0%	33 7%
1990	632	4 7%	1 9%	0 0%	6 0%	2 4%	3 0%	0 0%	3 5%	14 6%	1 6%	17 9%	0 0%	0 2%	0 0%	0 0%	0 0%	1 9%	0 0%	0 0%	4 6%	37 8%
1991	624	2 4%	1 3%	0 0%	2 1%	1 9%	1 9%	0 0%	5 3%	28 2%	1 1%	8 5%	0 0%	0 5%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	10 9%	35 4%
1992	558	2 3%	0 0%	2 5%	5 4%	7 7%	3 4%	0 0%	9 0%	26 3%	5 9%	5 6%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	5 9%	25 6%
1993	409	1 2%	1 2%	0 0%	1 5%	3 2%	1 7%	0 0%	3 4%	36 9%	3 9%	9 8%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	4 6%	31 5%
1994	252	4 4%	0 0%	0 0%	1 6%	2 0%	2 8%	0 0%	4 4%	23 4%	1 6%	6 0%	0 0%	0 0%	0 0%	0 0%	2 8%	0 0%	0 0%	0 0%	6 0%	45 2%
1995	201	7 0%	0 0%	0 0%	1 5%	2 5%	0 0%	0 0%	0 0%	10 9%	0 0%	7 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	10 0%	60 7%
1996	279	2 9%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	44 1%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	2 2%	48 0%
1997	207	2 9%	0 0%	0 0%	4 8%	1 9%	0 0%	7 2%	1 0%	8 7%	1 4%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	19 8%	50 2%
1998	184	7 1%	0 5%	0 0%	0 0%	5 4%	0 0%	0 0%	0 0%	10 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 7%	67 4%
1999	263	5 3%	2 3%	0 0%	3 4%	3 8%	0 0%	3 4%	0 0%	8 7%	3 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	2 3%	66 5%
2000	222	14 0%	0 9%	0 0%	0 0%	2 3%	0 0%	0 0%	0 0%	7 7%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	3 2%	0 0%	0 0%	0 0%	3 6%	68 0%
2001	462	4 1%	6 9%	0 0%	0 0%	9 5%	0 6%	0 0%	0 0%	8 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 7%	0 0%	0 0%	0 0%	2 2%	66 5%
2002	295	10 2%	0 0%	3 1%	3 4%	5 8%	2 4%	3 1%	0 0%	5 8%	0 0%	0 3%	0 0%	0 0%	0 0%	1 0%	2 0%	0 0%	0 0%	0 0%	3 4%	59 7%
2003	244	7 8%	0 4%	1 6%	0 0%	11 9%	3 3%	0 0%	0 0%	8 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	66 4%
2004	363	7 2%	0 0%	0 3%	5 0%	2 8%	1 7%	0 0%	0 0%	5 8%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	1 4%	0 0%	0 0%	0 0%	0 6%	74 9%
2005	517	8 7%	0 4%	0 0%	1 9%	12 0%	5 2%	2 7%	0 0%	5 8%	0 0%	0 8%	0 0%	0 6%	0 0%	0 6%	2 9%	0 0%	0 0%	0 0%	1 4%	57 1%
2006	583	4 1%	1 2%	1 9%	1 4%	4 3%	0 5%	0 0%	0 0%	3 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 2%	0 0%	0 0%	0 0%	3 3%	79 2%
2007	555	10 6%	0 2%	0 7%	5 0%	7 4%	0 5%	2 0%	0 0%	5 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	4 9%	62 2%
2008	378	4 2%	0 8%	0 3%	1 6%	6 9%	0 8%	6 9%	0 0%	6 3%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	1 6%	1 9%	0 0%	0 0%	2 1%	66 1%
1979-2008	718	5 0%	0 8%	0 5%	2 5%	3 8%	1 9%	0 9%	4 4%	17 5%	2 9%	7 2%	0 0%	0 1%	0 0%	0 1%	0 8%	0 3%	0 0%	0 0%	5 5%	45 7%
1979-1984	1795	3 0%	0 7%	0 4%	3 0%	1 6%	2 5%	0 1%	14 9%	22 3%	7 8%	14 8%	0 0%	0 0%	0 0%	0 0%	0 3%	0 3%	0 0%	0 0%	4 2%	24 2%
1985-1995	564	4 0%	0 6%	0 4%	2 7%	2 7%	2 5%	0 2%	3 7%	23 9%	3 2%	11 1%	0 0%	0 2%	0 0%	0 0%	0 7%	0 4%	0 0%	0 0%	7 9%	35 9%
1996-1998	223	4 3%	0 2%	0 0%	1 6%	2 8%	0 0%	2 4%	0 3%	21 2%	0 5%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	10 2%	55 2%
1999-2008	388	7 6%	1 3%	0 8%	2 2%	6 7%	1 5%	1 8%	0 0%	6 6%	0 3%	0 2%	0 0%	0 1%	0 0%	0 2%	1 5%	0 2%	0 0%	0 0%	2 4%	66 7%

Appendix C.4. Percent distribution of Big Qualicum River Fall total fishing mortalities among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	5214	4 3%	0 9%	0 4%	2 2%	0 4%	2 8%	0 1%	20 4%	14 9%	11 8%	11 7%	0 0%	0 0%	0 0%	0 1%	0 3%	0 0%	0 0%	0 0%	2 7%	27 2%
1980	2953	1 4%	1 7%	0 4%	4 9%	1 3%	5 0%	0 0%	15 0%	19 9%	7 6%	12 8%	0 0%	0 2%	0 0%	0 0%	0 3%	0 2%	0 0%	0 0%	3 6%	25 6%
1981	1567	2 0%	0 3%	0 4%	1 6%	0 8%	1 8%	0 3%	17 2%	32 7%	13 3%	13 8%	0 0%	0 0%	0 0%	0 0%	0 2%	0 6%	0 0%	0 0%	4 0%	11 0%
1982	796	5 3%	0 5%	1 4%	4 9%	0 4%	4 9%	0 0%	12 4%	11 3%	6 4%	20 2%	0 0%	0 0%	0 0%	0 0%	1 1%	0 8%	0 0%	0 0%	1 6%	28 8%
1983	694	5 5%	0 3%	0 7%	5 0%	1 2%	1 2%	0 0%	14 7%	14 6%	7 2%	18 9%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	8 4%	21 5%
1984	550	2 0%	0 4%	0 0%	1 5%	6 5%	1 6%	0 0%	9 3%	37 8%	7 3%	9 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 1%	18 7%
1985	797	6 4%	1 0%	0 0%	2 1%	2 1%	1 6%	0 0%	2 3%	23 0%	4 4%	18 8%	0 0%	0 0%	0 0%	0 0%	3 3%	0 0%	0 0%	0 0%	9 5%	25 5%
1986	1350	2 7%	1 3%	0 0%	0 8%	2 8%	1 4%	0 0%	9 9%	29 5%	13 5%	14 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 5%	17 9%
1987	793	9 6%	0 0%	1 0%	4 3%	2 9%	4 8%	0 0%	2 1%	22 6%	2 8%	7 6%	0 0%	0 9%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	6 7%	34 0%
1988	458	2 6%	1 3%	0 0%	2 6%	1 3%	3 3%	2 0%	2 0%	29 0%	1 3%	14 4%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	0 0%	0 0%	5 0%	33 6%
1989	605	4 3%	5 3%	0 8%	3 6%	1 8%	5 1%	0 0%	2 0%	20 8%	0 5%	8 1%	0 0%	0 3%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	18 2%	27 9%
1990	742	5 3%	3 9%	0 0%	7 0%	2 6%	3 2%	0 0%	3 9%	15 8%	1 8%	17 0%	0 0%	0 1%	0 0%	0 0%	0 0%	2 7%	0 0%	0 0%	4 6%	32 2%
1991	741	3 0%	2 7%	0 0%	2 4%	1 9%	2 2%	0 0%	6 3%	30 5%	1 3%	7 7%	0 0%	0 5%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	11 2%	29 8%
1992	676	3 7%	0 0%	2 7%	6 1%	7 5%	3 6%	0 0%	10 9%	27 2%	6 2%	4 9%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	5 6%	21 2%
1993	492	1 6%	2 4%	0 0%	1 6%	3 0%	1 8%	0 0%	4 5%	39 4%	4 7%	8 7%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	4 7%	26 2%
1994	277	5 1%	0 0%	0 0%	1 8%	1 8%	2 9%	0 0%	5 1%	25 6%	1 8%	5 4%	0 0%	0 0%	0 0%	0 0%	2 9%	0 0%	0 0%	0 0%	6 5%	41 2%
1995	232	7 8%	0 0%	0 0%	2 2%	3 4%	0 0%	0 0%	0 0%	12 1%	0 0%	11 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	10 3%	52 6%
1996	329	3 3%	0 0%	0 0%	0 6%	0 9%	0 3%	0 0%	0 0%	49 2%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	2 4%	40 7%
1997	235	3 4%	0 0%	0 0%	5 5%	2 6%	0 0%	6 8%	0 9%	9 4%	1 7%	4 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	20 9%	44 3%
1998	199	7 5%	0 5%	0 0%	0 0%	7 0%	0 0%	0 0%	0 0%	12 6%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	9 5%	62 3%
1999	289	6 2%	3 8%	0 0%	3 8%	4 8%	0 0%	3 8%	0 0%	10 0%	3 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	2 4%	60 6%
2000	242	16 5%	1 2%	0 0%	0 0%	2 9%	0 0%	0 0%	0 0%	8 7%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	3 7%	0 0%	0 0%	0 0%	4 1%	62 4%
2001	523	4 8%	11 3%	0 0%	0 0%	11 5%	0 6%	0 0%	0 0%	9 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	0 0%	0 0%	0 0%	2 3%	58 7%
2002	337	11 3%	0 0%	3 3%	3 6%	6 5%	2 1%	3 3%	0 0%	6 2%	0 0%	5 0%	0 0%	0 0%	0 0%	0 0%	2 1%	0 0%	0 0%	0 0%	3 6%	52 2%
2003	271	8 9%	0 7%	2 2%	0 0%	15 1%	3 3%	0 0%	0 0%	10 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	59 8%
2004	387	8 5%	0 0%	0 3%	5 9%	3 9%	1 6%	0 0%	0 0%	7 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	1 6%	0 0%	0 0%	0 0%	0 5%	70 3%
2005	585	10 1%	0 5%	0 0%	2 1%	15 2%	5 3%	2 9%	0 0%	6 3%	0 0%	1 0%	0 0%	0 5%	0 0%	0 7%	3 6%	0 0%	0 0%	0 0%	1 4%	50 4%
2006	621	5 3%	2 4%	2 3%	1 6%	4 8%	0 6%	0 0%	0 0%	4 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 2%	0 0%	0 0%	0 0%	3 7%	74 4%
2007	616	13 1%	0 2%	1 0%	5 4%	9 1%	0 6%	2 1%	0 0%	5 5%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	0 0%	0 0%	4 9%	56 0%
2008	417	6 0%	1 0%	0 5%	1 9%	7 7%	1 0%	7 4%	0 0%	7 2%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	1 9%	2 6%	0 0%	0 0%	2 4%	60 0%
1979-2008	800	5 9%	1 5%	0 6%	2 8%	4 5%	2 1%	1 0%	4 6%	18 4%	3 2%	7 3%	0 0%	0 1%	0 0%	0 1%	0 9%	0 4%	0 0%	0 0%	5 7%	40 9%
1979-1984	1962	3 4%	0 7%	0 6%	3 3%	1 8%	2 9%	0 1%	14 8%	21 9%	8 9%	14 5%	0 0%	0 0%	0 0%	0 0%	0 3%	0 4%	0 0%	0 0%	4 2%	22 1%
1985-1995	651	4 7%	1 6%	0 4%	3 1%	2 8%	2 7%	0 2%	4 4%	25 0%	3 5%	10 8%	0 0%	0 2%	0 0%	0 0%	0 8%	0 5%	0 0%	0 0%	8 0%	31 1%
1996-1998	254	4 8%	0 2%	0 0%	2 0%	3 5%	0 1%	2 3%	0 3%	23 7%	0 6%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	10 9%	49 1%
1999-2008	429	9 1%	2 1%	0 9%	2 4%	8 2%	1 5%	2 0%	0 0%	7 4%	0 4%	0 8%	0 0%	0 1%	0 0%	0 2%	1 7%	0 3%	0 0%	0 0%	2 5%	60 5%

Appendix C.5. Percent distribution of Chilliwack River Fall reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							FRAM														
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	2226	0.5%	0.0%	0.0%	0.3%	0.2%	33.7%	0.0%	5.5%	23.0%	2.3%	7.8%	0.0%	3.8%	0.0%	0.4%	4.7%	3.8%	0.0%	0.0%	0.9%	13.2%
1986	2112	0.0%	0.0%	0.0%	0.8%	0.2%	19.7%	0.0%	8.0%	20.0%	2.4%	15.7%	0.0%	2.5%	0.0%	0.2%	4.4%	6.2%	0.0%	0.0%	0.9%	19.1%
1987	2641	0.0%	0.0%	0.0%	0.8%	0.3%	17.0%	0.6%	15.5%	20.5%	0.4%	2.5%	0.0%	4.0%	0.0%	0.2%	4.1%	2.8%	0.0%	0.0%	1.1%	30.0%
1988	2253	0.4%	0.1%	0.0%	0.2%	0.0%	17.6%	0.0%	6.8%	11.0%	0.0%	2.6%	0.0%	4.3%	0.0%	0.1%	3.8%	2.1%	0.0%	0.0%	2.5%	48.4%
1989	1121	0.3%	0.0%	0.0%	0.0%	0.0%	20.2%	0.0%	1.5%	16.1%	0.0%	4.6%	0.0%	6.0%	0.0%	0.2%	4.4%	1.4%	0.0%	0.0%	0.6%	44.6%
1990	1535	0.8%	0.0%	0.0%	0.0%	0.3%	8.6%	2.4%	3.6%	10.6%	0.1%	6.7%	0.0%	7.7%	0.0%	0.5%	16.2%	6.2%	0.0%	0.0%	1.0%	35.3%
1991	2855	0.2%	0.1%	0.0%	0.4%	0.2%	18.7%	0.7%	8.1%	12.9%	0.2%	5.4%	0.0%	14.2%	0.0%	0.1%	6.7%	5.0%	0.0%	0.0%	1.5%	25.6%
1992	3944	0.3%	0.0%	0.0%	0.1%	0.2%	18.8%	0.2%	5.7%	10.2%	0.6%	1.6%	0.0%	8.7%	0.0%	0.2%	1.0%	3.6%	0.0%	0.0%	1.1%	47.7%
1993	1911	0.2%	0.0%	0.0%	0.0%	0.4%	12.5%	0.4%	7.2%	7.2%	0.0%	1.4%	0.0%	7.4%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	1.5%	60.9%
1994	654	0.3%	0.2%	0.0%	0.6%	0.0%	6.7%	2.3%	2.9%	5.7%	0.3%	7.6%	0.0%	1.5%	0.0%	0.0%	4.9%	4.4%	0.0%	0.0%	5.2%	57.2%
1995	2012	0.0%	0.0%	0.0%	0.0%	0.1%	9.0%	0.4%	0.0%	5.6%	0.0%	2.1%	0.0%	1.2%	0.0%	0.0%	1.5%	1.8%	0.0%	0.0%	1.0%	77.0%
1996	1536	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	14.8%	0.0%	2.5%	0.0%	4.8%	0.0%	0.0%	1.0%	3.3%	0.0%	0.0%	2.3%	70.6%
1997	2277	0.7%	0.0%	0.0%	0.2%	0.4%	10.5%	3.1%	0.0%	13.0%	0.4%	2.7%	0.0%	5.3%	0.0%	0.1%	2.5%	3.6%	0.0%	0.0%	2.9%	54.7%
1998	3124	0.4%	0.0%	0.0%	0.0%	0.3%	0.2%	0.3%	0.0%	2.8%	0.0%	0.4%	0.0%	3.0%	0.0%	0.0%	0.4%	0.5%	0.0%	0.0%	1.2%	90.4%
1999	3245	0.1%	0.0%	0.0%	0.2%	0.1%	0.3%	2.0%	0.0%	9.3%	0.0%	0.4%	0.0%	12.5%	0.0%	0.5%	0.7%	0.4%	0.0%	0.0%	1.5%	72.0%
2000	2593	0.1%	0.0%	0.0%	0.0%	0.4%	5.5%	2.4%	0.0%	3.6%	0.0%	0.0%	0.0%	3.8%	0.0%	0.1%	0.5%	0.5%	0.0%	0.0%	2.4%	80.7%
2001	3830	0.1%	0.1%	0.0%	0.0%	0.2%	3.9%	1.6%	0.0%	6.2%	0.0%	0.5%	0.0%	6.1%	0.0%	0.4%	0.9%	2.7%	0.0%	0.0%	10.9%	66.6%
2002	5029	0.2%	0.0%	0.0%	0.1%	0.2%	9.3%	5.0%	0.0%	3.3%	0.0%	0.6%	0.0%	7.5%	0.0%	1.2%	0.3%	1.5%	0.0%	0.0%	4.6%	66.1%
2003	4558	0.2%	0.0%	0.0%	0.0%	0.2%	6.2%	2.5%	0.0%	2.6%	0.0%	0.3%	0.0%	7.7%	0.0%	0.5%	0.4%	1.1%	0.0%	0.0%	6.1%	72.4%
2004	6649	0.1%	0.0%	0.0%	0.1%	0.0%	5.3%	2.2%	0.0%	0.7%	0.0%	0.7%	0.0%	6.3%	0.0%	0.2%	0.1%	0.9%	0.0%	0.0%	4.5%	78.9%
2005	3982	0.0%	0.0%	0.0%	0.1%	0.2%	7.6%	4.0%	0.0%	3.1%	0.0%	3.4%	0.0%	3.5%	0.0%	0.9%	0.8%	0.8%	0.0%	0.0%	5.7%	69.8%
2006	2946	0.0%	0.0%	0.0%	0.4%	0.0%	7.4%	2.0%	0.0%	2.1%	0.0%	0.6%	0.0%	2.4%	0.0%	0.3%	0.2%	1.2%	0.0%	0.0%	4.2%	78.1%
2007	1696	0.0%	0.0%	0.0%	0.2%	0.0%	7.5%	3.2%	0.0%	0.8%	0.0%	2.6%	0.0%	2.4%	0.0%	0.2%	0.5%	0.7%	0.0%	0.2%	5.7%	75.8%
2008	2774	0.2%	0.0%	0.0%	0.0%	0.0%	11.8%	4.8%	0.0%	1.7%	0.0%	0.6%	0.0%	4.2%	0.0%	1.7%	0.9%	1.5%	0.0%	0.0%	9.4%	63.3%
1979-2008	2812	0.2%	0.0%	0.0%	0.2%	0.2%	10.8%	1.7%	2.7%	8.6%	0.3%	3.1%	0.0%	5.5%	0.0%	0.3%	2.5%	2.4%	0.0%	0.0%	3.3%	58.3%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	2115	0.3%	0.0%	0.0%	0.3%	0.2%	16.6%	0.6%	5.9%	13.0%	0.6%	5.3%	0.0%	5.6%	0.0%	0.2%	4.7%	3.5%	0.0%	0.0%	1.6%	41.7%
1996-1998	2312	0.4%	0.0%	0.0%	0.1%	0.2%	3.6%	1.2%	0.0%	10.2%	0.1%	1.9%	0.0%	4.4%	0.0%	0.0%	1.3%	2.5%	0.0%	0.0%	2.1%	71.9%
1999-2008	3728	0.1%	0.0%	0.0%	0.1%	0.1%	6.5%	3.0%	0.0%	3.3%	0.0%	1.0%	0.0%	5.7%	0.0%	0.6%	0.5%	1.1%	0.0%	0.0%	5.5%	72.5%

Appendix C.6. Percent distribution of Chilliwack River Fall total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	2571	1 0%	0 1%	0 0%	0 4%	0 2%	33 5%	0 0%	6 5%	21 4%	2 3%	7 2%	0 0%	3 8%	0 0%	0 4%	5 8%	5 2%	0 0%	0 0%	0 8%	11 4%
1986	2590	0 0%	0 0%	0 0%	0 8%	0 2%	21 0%	0 0%	10 0%	17 7%	2 6%	13 9%	0 0%	2 7%	0 0%	0 2%	5 7%	8 7%	0 0%	0 0%	0 8%	15 6%
1987	3002	0 0%	0 0%	0 0%	0 9%	0 3%	20 0%	0 6%	17 0%	19 3%	0 5%	2 3%	0 0%	4 2%	0 0%	0 2%	4 2%	3 0%	0 0%	0 0%	1 1%	26 4%
1988	2480	0 4%	0 2%	0 0%	0 2%	0 0%	18 3%	0 0%	6 9%	11 5%	0 0%	2 6%	0 0%	4 4%	0 0%	0 1%	5 4%	3 7%	0 0%	0 0%	2 5%	44 0%
1989	1434	0 3%	0 0%	0 0%	0 0%	0 0%	25 7%	0 0%	2 0%	19 8%	0 0%	4 0%	0 0%	6 7%	0 0%	0 1%	4 4%	1 6%	0 0%	0 0%	0 6%	34 9%
1990	2145	1 0%	0 0%	0 0%	0 0%	0 3%	11 1%	2 1%	3 7%	11 3%	0 1%	5 4%	0 0%	7 7%	0 0%	0 5%	21 1%	9 7%	0 0%	0 0%	0 7%	25 3%
1991	3617	0 2%	0 1%	0 0%	0 4%	0 2%	20 5%	0 7%	9 8%	13 8%	0 2%	4 6%	0 0%	14 5%	0 0%	0 1%	7 5%	5 8%	0 0%	0 0%	1 3%	20 2%
1992	4479	0 3%	0 0%	0 0%	0 1%	0 2%	21 2%	0 2%	7 2%	11 1%	0 7%	1 5%	0 0%	9 2%	0 0%	0 2%	1 1%	4 0%	0 0%	0 0%	1 1%	42 0%
1993	2079	0 2%	0 0%	0 0%	0 0%	0 4%	14 1%	0 4%	9 1%	7 8%	0 0%	1 3%	0 0%	7 9%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	1 5%	55 9%
1994	792	0 5%	0 4%	0 0%	0 9%	0 0%	8 7%	2 5%	3 7%	6 8%	0 4%	8 3%	0 0%	1 5%	0 0%	0 0%	6 9%	7 4%	0 0%	0 0%	4 7%	47 2%
1995	2257	0 0%	0 0%	0 0%	0 0%	0 2%	14 2%	0 4%	0 0%	6 8%	0 0%	2 7%	0 0%	1 2%	0 0%	0 0%	2 0%	2 8%	0 0%	0 0%	1 0%	68 7%
1996	1767	0 3%	0 0%	0 0%	0 1%	0 0%	2 8%	0 4%	0 0%	17 8%	0 0%	2 9%	0 0%	4 6%	0 0%	0 0%	1 5%	6 0%	0 0%	0 0%	2 2%	61 3%
1997	2606	0 8%	0 0%	0 0%	0 2%	0 5%	13 4%	3 0%	0 0%	14 9%	0 5%	3 0%	0 0%	5 9%	0 0%	0 1%	2 7%	4 5%	0 0%	0 0%	2 7%	47 8%
1998	3215	0 5%	0 0%	0 0%	0 0%	0 4%	0 2%	0 3%	0 0%	3 5%	0 0%	0 6%	0 0%	3 7%	0 0%	0 0%	0 5%	1 2%	0 0%	0 0%	1 2%	87 9%
1999	3484	0 1%	0 0%	0 0%	0 2%	0 1%	0 3%	2 1%	0 0%	11 4%	0 0%	0 4%	0 0%	14 8%	0 0%	0 5%	0 8%	0 6%	0 0%	0 0%	1 5%	67 0%
2000	2747	0 2%	0 0%	0 0%	0 0%	0 6%	6 2%	2 9%	0 0%	4 5%	0 0%	0 0%	0 0%	4 7%	0 0%	0 1%	0 9%	1 4%	0 0%	0 0%	2 4%	76 2%
2001	4278	0 1%	0 1%	0 0%	0 0%	0 3%	4 0%	1 8%	0 0%	7 6%	0 0%	0 5%	0 0%	7 2%	0 0%	0 4%	1 3%	6 5%	0 0%	0 0%	10 6%	59 6%
2002	5414	0 3%	0 0%	0 0%	0 1%	0 3%	9 6%	5 7%	0 0%	4 1%	0 0%	0 7%	0 0%	9 0%	0 0%	1 3%	0 4%	2 5%	0 0%	0 0%	4 6%	61 4%
2003	4797	0 2%	0 0%	0 0%	0 0%	0 2%	6 4%	3 1%	0 0%	3 1%	0 0%	0 3%	0 0%	9 0%	0 0%	0 5%	0 4%	1 6%	0 0%	0 0%	6 3%	68 8%
2004	6875	0 2%	0 0%	0 0%	0 2%	0 0%	5 6%	2 5%	0 0%	0 8%	0 0%	0 7%	0 0%	7 4%	0 0%	0 2%	0 1%	1 3%	0 0%	0 0%	4 7%	76 3%
2005	4124	0 0%	0 0%	0 0%	0 1%	0 3%	7 8%	4 6%	0 0%	3 6%	0 0%	3 4%	0 0%	4 0%	0 0%	0 9%	1 0%	1 3%	0 0%	0 0%	5 9%	67 1%
2006	3046	0 0%	0 0%	0 0%	0 5%	0 0%	7 8%	2 2%	0 0%	2 5%	0 0%	0 6%	0 0%	3 0%	0 0%	0 3%	0 3%	2 0%	0 0%	0 0%	4 4%	76 5%
2007	1865	0 0%	0 0%	0 0%	0 3%	0 0%	9 3%	3 9%	0 0%	1 2%	0 0%	2 9%	0 0%	2 9%	0 0%	0 2%	1 0%	3 3%	0 0%	0 2%	5 7%	69 0%
2008	2911	0 4%	0 0%	0 0%	0 0%	0 0%	11 8%	5 3%	0 0%	2 1%	0 0%	0 7%	0 0%	5 2%	0 0%	1 8%	1 0%	1 9%	0 0%	0 0%	9 6%	60 3%
1979-2008	3107	0 3%	0 0%	0 0%	0 2%	0 2%	12 2%	1 9%	3 2%	9 4%	0 3%	2 9%	0 0%	6 0%	0 0%	0 3%	3 2%	3 6%	0 0%	0 0%	3 2%	52 9%
1979-1984	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	2495	0 4%	0 1%	0 0%	0 3%	0 2%	18 9%	0 6%	6 9%	13 4%	0 6%	4 9%	0 0%	5 8%	0 0%	0 2%	5 8%	4 8%	0 0%	0 0%	1 5%	35 6%
1996-1998	2529	0 6%	0 0%	0 0%	0 1%	0 3%	5 5%	1 2%	0 0%	12 1%	0 2%	2 2%	0 0%	4 7%	0 0%	0 0%	1 6%	3 9%	0 0%	0 0%	2 0%	65 7%
1999-2008	3954	0 1%	0 0%	0 0%	0 1%	0 2%	6 9%	3 4%	0 0%	4 1%	0 0%	1 0%	0 0%	6 7%	0 0%	0 6%	0 7%	2 3%	0 0%	0 0%	5 6%	68 2%

Appendix C.7. Percent distribution of Chilkat River reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1997	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1998	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1999	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2000	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2001	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	355	6.5%	9.9%	7.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	75.8%
2005	354	6.5%	5.9%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	85.6%
2006	185	4.9%	2.7%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	90.3%
2007	156	7.1%	9.0%	5.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	78.8%
2008	216	9.3%	9.3%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	80.1%
1979-2008	253	6.8%	7.3%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	82.1%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1996-1998	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1999-2008	253	6.8%	7.3%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	82.1%

Appendix C.8. Percent distribution of Chilkat River total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1997	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1998	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1999	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2000	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2001	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	385	7 0%	15 1%	8 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	69 9%
2005	366	7 1%	7 9%	2 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	82 8%
2006	189	5 8%	3 2%	2 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	88 4%
2007	177	8 5%	15 8%	6 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	69 5%
2008	221	9 5%	10 9%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	78 3%
1979-2008	268	7 6%	10 6%	4 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	77 8%
1979-1984	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1996-1998	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1999-2008	268	7 6%	10 6%	4 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	77 8%

Appendix C.9. Percent distribution of Cowichan River Fall reported catch among fisheries and escapement.

	Estimated	AABM							ISBM														
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	1072	0.0%	0.0%	0.0%	0.0%	0.3%	1.3%	0.0%	18.8%	32.4%	1.4%	17.6%	0.0%	0.7%	0.0%	0.3%	3.1%	2.0%	0.0%	0.7%	1.8%	19.8%
1991	2880	0.1%	0.0%	0.0%	0.2%	1.5%	3.4%	0.8%	7.3%	52.4%	0.2%	5.6%	0.0%	0.9%	0.0%	0.0%	3.7%	0.9%	0.0%	0.5%	0.8%	21.6%
1992	3227	0.1%	0.0%	0.0%	0.4%	0.9%	9.6%	1.4%	17.2%	45.1%	1.1%	5.4%	0.0%	0.3%	0.0%	0.0%	1.4%	1.3%	0.0%	0.9%	0.5%	14.6%
1993	3306	0.2%	0.0%	0.0%	0.1%	1.5%	7.8%	1.6%	10.1%	48.7%	0.5%	4.0%	0.0%	0.6%	0.0%	0.0%	0.9%	0.5%	0.0%	1.3%	0.7%	21.6%
1994	1024	0.6%	0.0%	0.0%	0.4%	0.0%	4.1%	0.9%	4.6%	31.0%	0.2%	8.6%	0.0%	0.4%	0.0%	0.0%	3.7%	0.5%	0.0%	4.4%	2.3%	38.4%
1995	1355	0.3%	0.0%	0.0%	0.0%	0.0%	4.1%	0.7%	0.0%	30.0%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	2.2%	0.7%	0.0%	1.8%	3.9%	54.5%
1996	1023	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	39.8%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.9%	3.5%	0.0%	5.8%	2.2%	45.7%
1997	787	0.8%	0.0%	0.0%	0.0%	0.5%	2.3%	1.1%	0.0%	18.8%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	3.0%	2.4%	0.0%	0.4%	2.2%	68.0%
1998	398	3.8%	0.0%	0.0%	0.0%	0.8%	0.5%	1.8%	0.0%	19.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	3.0%	0.0%	0.0%	9.5%	7.3%	53.8%
1999	419	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	4.1%	0.0%	32.9%	0.0%	0.0%	0.0%	1.0%	0.0%	0.7%	6.7%	0.0%	0.0%	2.9%	6.0%	44.6%
2000	694	1.2%	0.1%	0.0%	0.0%	0.0%	1.3%	4.8%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	1.3%	0.0%	0.6%	6.2%	67.9%
2001	619	0.3%	0.0%	0.0%	0.0%	0.2%	10.7%	0.0%	0.0%	24.1%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	11.6%	1.0%	0.0%	8.1%	2.3%	41.7%
2002	636	1.3%	0.0%	0.0%	0.0%	2.2%	4.4%	3.0%	0.0%	18.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	3.8%	4.1%	0.0%	14.2%	13.7%	34.8%
2003	314	2.2%	0.3%	0.0%	2.5%	2.9%	10.2%	2.9%	0.0%	26.4%	3.5%	0.0%	0.0%	0.6%	0.0%	0.0%	6.7%	2.5%	0.0%	5.4%	3.8%	29.9%
2004	322	0.0%	0.3%	0.0%	0.9%	4.0%	17.4%	11.8%	0.0%	18.9%	0.0%	0.0%	0.0%	2.5%	0.0%	0.0%	6.2%	1.9%	0.0%	4.3%	3.1%	28.6%
2005	290	0.0%	0.3%	0.0%	1.4%	4.8%	25.5%	2.1%	0.0%	7.6%	0.0%	1.0%	0.0%	0.3%	0.0%	1.0%	15.2%	1.0%	0.0%	8.6%	0.0%	31.0%
2006	258	1.2%	0.0%	0.0%	0.8%	0.0%	22.9%	11.2%	0.0%	13.6%	0.0%	0.0%	0.0%	2.3%	0.0%	0.8%	5.0%	4.7%	0.0%	7.4%	0.0%	30.2%
2007	220	0.0%	0.0%	0.0%	0.0%	0.0%	8.2%	1.4%	0.0%	4.1%	0.0%	0.9%	0.0%	0.0%	0.0%	0.5%	6.8%	0.0%	0.0%	6.8%	0.0%	71.4%
2008	210	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%	13.3%	0.0%	21.9%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	5.2%	0.0%	0.0%	7.1%	0.0%	36.7%
1979-2008	1002	0.6%	0.1%	0.0%	0.4%	1.1%	7.8%	3.4%	3.0%	26.2%	0.4%	2.4%	0.0%	0.6%	0.0%	0.2%	4.9%	1.5%	0.0%	4.8%	3.0%	39.7%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	2141	0.2%	0.0%	0.0%	0.2%	0.7%	5.0%	0.9%	9.7%	39.9%	0.6%	7.2%	0.0%	0.5%	0.0%	0.0%	2.5%	1.0%	0.0%	1.6%	1.7%	28.4%
1996-1998	736	1.6%	0.0%	0.0%	0.0%	0.4%	0.9%	1.3%	0.0%	26.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	2.3%	2.0%	0.0%	5.2%	3.9%	55.8%
1999-2008	398	0.6%	0.1%	0.0%	0.6%	1.5%	11.5%	5.4%	0.0%	18.0%	0.4%	0.2%	0.0%	0.9%	0.0%	0.3%	7.1%	1.6%	0.0%	6.5%	3.5%	41.7%

Appendix C.10. Percent distribution of Cowichan River Fall total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	1545	0.0%	0.0%	0.0%	0.1%	0.6%	2.8%	0.1%	17.3%	40.3%	1.4%	13.5%	0.0%	0.8%	0.0%	0.2%	4.5%	2.5%	0.0%	0.5%	1.5%	13.7%
1991	3642	0.1%	0.0%	0.0%	0.2%	1.5%	4.5%	0.7%	10.4%	53.4%	0.4%	4.9%	0.0%	0.9%	0.0%	0.0%	3.8%	1.0%	0.0%	0.5%	0.8%	17.0%
1992	4058	0.1%	0.1%	0.0%	0.4%	0.9%	9.8%	1.2%	20.2%	45.6%	1.1%	4.6%	0.0%	0.3%	0.0%	0.0%	1.4%	1.4%	0.0%	0.8%	0.5%	11.6%
1993	3979	0.3%	0.0%	0.0%	0.1%	1.4%	8.2%	1.4%	12.5%	50.4%	0.5%	3.5%	0.0%	0.6%	0.0%	0.0%	0.9%	0.5%	0.0%	1.1%	0.7%	18.0%
1994	1204	0.6%	0.0%	0.0%	0.4%	0.0%	4.4%	0.8%	5.4%	34.7%	0.2%	8.5%	0.0%	0.4%	0.0%	0.0%	4.6%	0.7%	0.0%	4.1%	2.6%	32.6%
1995	1568	0.4%	0.0%	0.0%	0.0%	0.0%	5.7%	0.6%	0.0%	33.5%	0.0%	3.1%	0.0%	0.0%	0.0%	0.0%	2.6%	1.1%	0.0%	1.7%	4.3%	47.1%
1996	1193	0.3%	0.0%	0.0%	0.0%	0.0%	0.3%	1.1%	0.0%	44.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	1.1%	5.2%	0.0%	5.4%	2.5%	39.1%
1997	886	1.0%	0.0%	0.0%	0.0%	0.6%	3.0%	1.1%	0.0%	22.2%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	3.6%	3.5%	0.0%	0.3%	2.6%	60.4%
1998	442	4.3%	0.0%	0.0%	0.0%	0.9%	0.5%	1.8%	0.0%	22.2%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	3.8%	0.0%	0.0%	9.3%	8.4%	48.4%
1999	495	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	4.0%	0.0%	37.4%	0.0%	0.0%	0.0%	1.0%	0.0%	0.6%	8.9%	0.0%	0.0%	2.6%	6.3%	37.8%
2000	764	1.6%	0.4%	0.0%	0.0%	0.0%	1.3%	5.0%	0.0%	14.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	2.4%	0.0%	0.5%	7.3%	61.6%
2001	728	0.4%	0.0%	0.0%	0.0%	0.1%	10.0%	0.0%	0.0%	27.2%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	13.7%	3.0%	0.0%	7.4%	2.5%	35.4%
2002	729	1.5%	0.0%	0.0%	0.0%	2.5%	4.0%	3.2%	0.0%	19.9%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	4.3%	5.9%	0.0%	13.2%	14.7%	30.3%
2003	379	2.4%	0.3%	0.0%	2.6%	3.4%	9.2%	3.2%	0.0%	28.0%	4.7%	0.0%	0.0%	0.5%	0.0%	0.0%	8.2%	4.0%	0.0%	4.7%	4.0%	24.8%
2004	372	0.0%	0.5%	0.0%	0.8%	5.1%	16.1%	12.1%	0.0%	21.2%	0.0%	0.0%	0.0%	2.7%	0.0%	0.0%	7.0%	2.2%	0.0%	4.0%	3.5%	24.7%
2005	340	0.0%	0.3%	0.0%	1.5%	5.6%	24.4%	2.1%	0.0%	8.2%	0.0%	1.5%	0.0%	0.3%	0.0%	0.9%	19.1%	1.8%	0.0%	7.9%	0.0%	26.5%
2006	277	1.1%	0.0%	0.0%	0.7%	0.0%	22.0%	11.9%	0.0%	14.8%	0.0%	0.0%	0.0%	2.5%	0.0%	0.7%	5.4%	5.4%	0.0%	7.2%	0.0%	28.2%
2007	245	0.0%	0.0%	0.0%	0.0%	0.0%	8.6%	2.4%	0.0%	7.8%	0.0%	0.8%	0.0%	0.0%	0.0%	0.8%	9.0%	0.0%	0.0%	6.5%	0.0%	64.1%
2008	226	0.0%	0.0%	0.0%	0.0%	0.0%	13.7%	14.2%	0.0%	23.9%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	5.8%	0.0%	0.0%	7.1%	0.0%	34.1%
1979-2008	1214	0.7%	0.1%	0.0%	0.4%	1.3%	7.8%	3.5%	3.5%	28.9%	0.4%	2.3%	0.0%	0.6%	0.0%	0.2%	5.9%	2.1%	0.0%	4.5%	3.3%	34.5%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	2666	0.2%	0.0%	0.0%	0.2%	0.7%	5.9%	0.8%	11.0%	43.0%	0.6%	6.3%	0.0%	0.5%	0.0%	0.0%	3.0%	1.2%	0.0%	1.4%	1.7%	23.3%
1996-1998	840	1.9%	0.0%	0.0%	0.0%	0.5%	1.3%	1.3%	0.0%	29.5%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	2.8%	2.9%	0.0%	5.0%	4.5%	49.3%
1999-2008	456	0.7%	0.1%	0.0%	0.6%	1.8%	10.9%	5.8%	0.0%	20.3%	0.5%	0.2%	0.0%	0.9%	0.0%	0.3%	8.6%	2.5%	0.0%	6.1%	3.8%	36.7%

Appendix C.11. Percent distribution of Cowlitz Fall Tule reported catch among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	378	5.6%	0.0%	0.0%	2.4%	6.3%	16.1%	0.0%	0.0%	0.0%	0.0%	3.7%	0.0%	10.8%	0.0%	12.7%	0.0%	0.0%	0.0%	14.8%	0.0%	27.5%
1982	435	3.7%	0.0%	0.2%	1.4%	0.0%	14.9%	0.9%	0.0%	0.0%	0.5%	3.2%	0.0%	18.4%	0.0%	10.6%	2.1%	0.0%	0.0%	7.6%	1.8%	34.7%
1983	564	3.7%	0.0%	0.0%	6.7%	0.0%	17.9%	0.0%	0.0%	0.4%	3.7%	1.1%	0.0%	6.9%	0.0%	17.6%	0.4%	0.0%	0.0%	4.4%	1.1%	36.2%
1984	748	4.4%	0.0%	0.0%	7.2%	0.8%	24.3%	0.0%	0.0%	0.0%	2.1%	1.9%	0.0%	4.5%	0.0%	0.1%	0.1%	0.0%	0.0%	15.0%	3.5%	36.0%
1985	677	3.7%	0.3%	0.0%	4.0%	0.0%	11.4%	0.0%	0.0%	0.4%	0.0%	5.6%	0.0%	4.4%	0.0%	5.2%	0.4%	0.4%	0.0%	6.1%	8.1%	49.9%
1986	1392	0.4%	0.1%	0.0%	0.2%	0.0%	12.7%	0.0%	0.0%	0.4%	0.6%	1.9%	0.0%	12.9%	0.0%	5.3%	0.2%	0.4%	0.0%	30.7%	6.8%	27.4%
1987	1315	3.7%	0.3%	0.0%	3.9%	0.0%	9.7%	1.0%	0.0%	0.0%	1.2%	0.8%	0.0%	11.4%	0.0%	7.2%	0.1%	0.5%	0.0%	22.8%	8.4%	29.0%
1988	1447	1.7%	0.3%	0.0%	1.9%	0.0%	15.9%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	15.3%	0.0%	2.0%	0.0%	0.0%	0.0%	24.0%	10.4%	27.7%
1989	578	3.3%	0.0%	0.7%	4.5%	0.0%	6.6%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	17.8%	0.0%	3.1%	0.0%	0.3%	0.0%	7.1%	7.1%	48.1%
1990	274	4.4%	0.0%	0.0%	1.8%	0.0%	14.2%	0.0%	0.0%	0.0%	2.9%	3.3%	0.0%	9.5%	0.0%	7.7%	0.0%	3.3%	0.0%	0.0%	1.1%	51.8%
1991	124	9.7%	0.0%	0.0%	3.2%	0.0%	5.6%	3.2%	0.0%	0.0%	1.6%	0.0%	0.0%	10.5%	0.0%	4.0%	0.0%	0.0%	0.0%	11.3%	5.6%	45.2%
1992	186	2.2%	0.0%	0.0%	0.0%	1.6%	17.7%	0.0%	0.0%	0.0%	2.2%	0.0%	0.0%	7.0%	2.2%	4.8%	0.0%	0.0%	0.0%	3.2%	0.0%	59.1%
1993	325	3.4%	0.0%	0.0%	2.5%	0.0%	6.8%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	17.5%	0.0%	7.4%	0.0%	0.0%	0.0%	3.1%	15.1%	43.4%
1994	213	4.2%	0.0%	0.0%	1.9%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	88.7%
1995	169	0.6%	0.0%	0.0%	1.8%	0.0%	1.8%	2.4%	0.0%	0.0%	0.0%	1.2%	0.0%	4.7%	0.0%	0.0%	1.2%	0.0%	0.0%	1.2%	1.8%	83.4%
1996	269	4.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	0.0%	0.0%	5.9%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	3.3%	83.3%
1997	164	4.9%	0.0%	9.8%	3.0%	0.0%	4.9%	0.0%	0.0%	2.4%	0.0%	0.0%	0.0%	5.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	68.3%
1998	81	3.7%	0.0%	0.0%	7.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.9%	0.0%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	76.5%
1999	139	4.3%	0.0%	3.6%	0.0%	5.8%	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.6%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	14.4%	56.1%
2000	98	3.1%	0.0%	0.0%	0.0%	0.0%	8.2%	12.2%	0.0%	0.0%	0.0%	0.0%	0.0%	13.3%	0.0%	2.0%	0.0%	0.0%	0.0%	5.1%	5.1%	51.0%
2001	459	0.9%	0.0%	0.0%	0.0%	0.0%	1.3%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	10.5%	0.0%	9.4%	0.0%	0.0%	0.0%	1.5%	2.4%	70.8%
2002	529	6.2%	0.0%	0.0%	0.9%	0.0%	7.8%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	25.7%	0.0%	21.4%	0.0%	0.0%	0.0%	3.4%	3.8%	27.6%
2003	519	5.0%	0.0%	0.0%	1.3%	0.0%	10.0%	1.9%	0.0%	1.3%	0.0%	0.0%	0.0%	17.1%	0.0%	6.6%	0.0%	0.0%	0.0%	8.9%	5.2%	42.6%
2004	207	4.3%	0.0%	0.0%	1.0%	0.0%	6.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	17.9%	0.0%	9.2%	0.0%	1.4%	0.0%	9.2%	2.4%	48.3%
2005	230	2.6%	7.4%	0.0%	2.6%	0.0%	4.3%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.8%	0.0%	5.2%	0.0%	0.0%	0.0%	3.5%	3.9%	59.6%
2006	138	5.8%	0.0%	0.0%	2.9%	0.0%	5.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.5%	0.0%	2.2%	0.0%	0.0%	0.0%	2.2%	10.9%	64.5%
2007	133	2.3%	1.5%	0.0%	5.3%	0.0%	10.5%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	12.0%	0.0%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	60.9%
2008	187	0.0%	0.0%	0.0%	0.0%	0.0%	8.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	5.3%	0.0%	1.6%	0.0%	2.7%	10.2%	69.5%
1979-2008	428	3.6%	0.4%	0.5%	2.4%	0.5%	8.9%	1.2%	0.0%	0.3%	0.5%	0.9%	0.0%	10.6%	0.1%	5.6%	0.2%	0.3%	0.0%	6.7%	4.8%	52.4%
1979-1984	531	4.3%	0.0%	0.1%	4.4%	1.8%	18.3%	0.2%	0.0%	0.1%	1.6%	2.5%	0.0%	10.2%	0.0%	10.2%	0.6%	0.0%	0.0%	10.5%	1.6%	33.6%
1985-1995	609	3.4%	0.1%	0.1%	2.3%	0.1%	9.5%	0.6%	0.0%	0.1%	0.8%	1.4%	0.0%	10.4%	0.2%	4.2%	0.2%	0.5%	0.0%	10.0%	5.8%	50.3%
1996-1998	171	4.2%	0.0%	3.3%	3.5%	0.0%	1.6%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	7.1%	0.0%	0.8%	0.0%	0.0%	0.0%	0.4%	1.5%	76.0%
1999-2008	264	3.5%	0.9%	0.4%	1.4%	0.6%	6.6%	2.7%	0.0%	0.1%	0.0%	0.0%	0.0%	12.2%	0.0%	6.8%	0.0%	0.3%	0.0%	3.6%	5.8%	55.1%

Appendix C.12. Percent distribution of Cowlitz Fall Tule total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	423	5.9%	0.0%	0.0%	2.4%	6.1%	18.7%	0.0%	0.0%	0.0%	0.0%	3.3%	0.0%	12.5%	0.0%	12.5%	0.5%	0.0%	0.0%	13.5%	0.0%	24.6%
1982	507	4.1%	0.0%	0.4%	1.6%	0.0%	17.2%	1.0%	0.0%	0.0%	0.4%	3.4%	0.0%	20.1%	0.0%	10.8%	2.8%	0.0%	0.0%	6.7%	1.8%	29.8%
1983	614	4.2%	0.0%	0.0%	7.2%	0.0%	18.9%	0.0%	0.0%	0.3%	3.9%	1.0%	0.0%	7.8%	0.0%	17.8%	0.5%	0.0%	0.0%	4.2%	1.0%	33.2%
1984	792	5.2%	0.0%	0.0%	7.4%	0.9%	25.3%	0.0%	0.0%	0.0%	2.3%	1.9%	0.0%	4.8%	0.0%	0.1%	0.1%	0.0%	0.0%	14.5%	3.5%	34.0%
1985	743	4.0%	0.9%	0.0%	4.4%	0.0%	12.7%	0.0%	0.0%	0.4%	0.0%	5.7%	0.0%	5.1%	0.0%	5.7%	0.5%	0.7%	0.0%	5.8%	8.6%	45.5%
1986	1533	0.5%	0.2%	0.0%	0.2%	0.0%	14.0%	0.0%	0.0%	0.3%	0.7%	1.8%	0.0%	14.5%	0.0%	5.5%	0.3%	0.5%	0.0%	29.8%	6.7%	24.9%
1987	1480	5.6%	0.6%	0.0%	4.6%	0.0%	11.3%	0.9%	0.0%	0.0%	1.4%	0.7%	0.0%	12.2%	0.0%	7.1%	0.1%	0.5%	0.0%	21.2%	8.0%	25.7%
1988	1557	1.8%	0.6%	0.0%	2.1%	0.0%	17.9%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	15.9%	0.0%	2.0%	0.0%	0.0%	0.0%	22.8%	10.5%	25.8%
1989	613	4.2%	0.0%	0.7%	4.7%	0.0%	7.2%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	18.8%	0.0%	3.3%	0.0%	0.3%	0.0%	6.9%	7.3%	45.4%
1990	297	4.4%	0.0%	0.0%	2.4%	0.0%	15.5%	0.0%	0.0%	0.0%	3.4%	3.7%	0.0%	10.1%	0.0%	7.7%	0.0%	4.0%	0.0%	0.0%	1.0%	47.8%
1991	137	12.4%	0.0%	0.0%	3.6%	0.0%	6.6%	2.9%	0.0%	0.0%	1.5%	0.0%	0.0%	11.7%	0.0%	3.6%	0.0%	0.0%	0.0%	10.9%	5.8%	40.9%
1992	203	2.5%	0.0%	0.0%	0.0%	2.0%	20.2%	0.0%	0.0%	0.0%	2.5%	0.0%	0.0%	7.9%	2.5%	5.4%	0.0%	0.0%	0.0%	3.0%	0.0%	54.2%
1993	367	4.1%	0.0%	0.0%	3.0%	0.0%	7.6%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	18.8%	0.0%	7.4%	0.0%	0.0%	0.0%	3.0%	16.6%	38.4%
1994	217	5.1%	0.0%	0.0%	2.3%	0.0%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	87.1%
1995	174	1.7%	0.0%	0.0%	2.9%	0.0%	2.3%	2.3%	0.0%	0.0%	0.0%	1.1%	0.0%	4.6%	0.0%	0.0%	1.1%	0.0%	0.0%	1.1%	1.7%	81.0%
1996	279	5.4%	0.0%	0.0%	0.4%	0.0%	0.7%	0.0%	0.0%	2.5%	0.0%	0.0%	0.0%	6.1%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	3.6%	80.3%
1997	174	5.7%	0.0%	10.9%	3.4%	0.0%	5.7%	0.0%	0.0%	2.9%	0.0%	0.0%	0.0%	5.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	64.4%
1998	84	4.8%	0.0%	0.0%	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.7%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	73.8%
1999	152	6.6%	0.0%	3.9%	0.0%	6.6%	3.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.2%	0.0%	3.3%	0.0%	0.0%	0.0%	0.0%	15.1%	51.3%
2000	109	3.7%	0.0%	0.0%	0.0%	0.0%	8.3%	13.8%	0.0%	0.0%	0.0%	0.0%	0.0%	16.5%	0.0%	1.8%	0.0%	0.0%	0.0%	4.6%	5.5%	45.9%
2001	482	1.0%	0.0%	0.0%	0.0%	0.0%	1.2%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	12.0%	0.0%	10.2%	0.0%	0.0%	0.0%	1.5%	2.9%	67.4%
2002	578	6.7%	0.0%	0.0%	1.0%	0.0%	7.3%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	27.5%	0.0%	21.5%	0.0%	0.0%	0.0%	3.3%	4.2%	25.3%
2003	547	5.3%	0.0%	0.0%	1.5%	0.0%	9.9%	2.2%	0.0%	1.5%	0.0%	0.0%	0.0%	18.3%	0.0%	6.9%	0.0%	0.0%	0.0%	8.6%	5.5%	40.4%
2004	221	5.0%	0.0%	0.0%	0.9%	0.0%	5.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	19.5%	0.0%	9.5%	0.0%	2.3%	0.0%	9.0%	2.7%	45.2%
2005	241	2.9%	8.7%	0.0%	2.9%	0.0%	4.1%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	6.3%	0.0%	5.4%	0.0%	0.0%	0.0%	3.3%	4.1%	56.8%
2006	141	5.7%	0.0%	0.0%	2.8%	0.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.1%	0.0%	2.1%	0.0%	0.0%	0.0%	2.1%	12.1%	63.1%
2007	153	3.3%	3.3%	0.0%	5.2%	0.0%	9.8%	3.9%	0.0%	0.0%	0.0%	0.0%	0.0%	17.0%	0.0%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%	52.9%
2008	202	0.0%	0.0%	0.0%	0.0%	0.0%	8.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	0.0%	5.9%	0.0%	4.5%	0.0%	2.5%	11.4%	64.4%
1979-2008	465	4.4%	0.5%	0.6%	2.7%	0.6%	9.6%	1.3%	0.0%	0.3%	0.6%	0.9%	0.0%	11.7%	0.1%	5.8%	0.2%	0.5%	0.0%	6.4%	5.0%	48.9%
1979-1984	584	4.9%	0.0%	0.1%	4.6%	1.8%	20.0%	0.2%	0.0%	0.1%	1.6%	2.4%	0.0%	11.3%	0.0%	10.3%	1.0%	0.0%	0.0%	9.7%	1.6%	30.4%
1985-1995	666	4.2%	0.2%	0.1%	2.8%	0.2%	10.7%	0.6%	0.0%	0.1%	0.9%	1.5%	0.0%	11.2%	0.2%	4.3%	0.2%	0.6%	0.0%	9.5%	6.0%	47.0%
1996-1998	179	5.3%	0.0%	3.6%	4.0%	0.0%	2.2%	0.0%	0.0%	1.8%	0.0%	0.0%	0.0%	7.5%	0.0%	0.8%	0.0%	0.0%	0.0%	0.4%	1.6%	72.8%
1999-2008	283	4.0%	1.2%	0.4%	1.4%	0.7%	6.4%	3.0%	0.0%	0.1%	0.0%	0.0%	0.0%	13.8%	0.0%	7.1%	0.0%	0.7%	0.0%	3.5%	6.3%	51.3%

Appendix C.13. Percent distribution of Dome Creek Spring reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	212	0.9%	0.0%	0.0%	0.0%	0.0%	1.9%	0.0%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	92.9%
1995	463	0.0%	0.0%	0.0%	0.6%	0.0%	1.3%	0.0%	0.0%	5.8%	0.0%	12.3%	0.0%	0.4%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	3.2%	75.2%
1996	358	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	5.0%	0.0%	39.4%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	4.2%	49.2%
1997	281	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.4%	0.0%	7.1%	0.0%	31.0%	0.0%	1.4%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	58.0%
1998	385	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.4%	0.0%	64.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	26.5%
1999	30	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	23.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	36.7%	20.0%	20.0%
2000	127	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.6%	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	54.3%	0.0%	30.7%
2001	244	0.0%	0.0%	0.0%	0.0%	0.8%	2.5%	0.0%	0.0%	16.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	50.4%	3.3%	26.6%
2002	148	0.0%	0.0%	0.0%	10.8%	0.0%	12.2%	0.0%	0.0%	10.1%	0.0%	18.2%	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.3%
2003	149	0.0%	0.0%	0.0%	5.4%	0.0%	0.0%	6.0%	0.0%	12.1%	0.0%	61.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.4%
2004	< 10 CWTs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2005	202	0.0%	0.0%	0.0%	3.5%	0.0%	0.0%	0.0%	0.0%	3.5%	0.0%	57.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.4%	27.7%
2006	142	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	4.2%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	56.3%	0.0%	33.1%
2007	28	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.7%	0.0%	0.0%	0.0%	3.6%	0.0%	0.0%	0.0%	21.4%	0.0%	42.9%	0.0%	21.4%
2008	22	13.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	59.1%	0.0%	27.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1979-2008	187	1.0%	0.0%	0.0%	1.4%	0.1%	1.6%	0.4%	0.0%	11.8%	0.0%	20.8%	0.0%	0.8%	0.0%	0.0%	0.1%	1.6%	0.0%	20.5%	3.7%	36.3%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	338	0.5%	0.0%	0.0%	0.3%	0.0%	1.6%	0.0%	0.0%	4.1%	0.0%	6.2%	0.0%	0.2%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	2.6%	84.0%
1996-1998	341	0.0%	0.0%	0.0%	0.0%	0.3%	0.4%	0.1%	0.0%	5.5%	0.0%	45.1%	0.0%	0.5%	0.0%	0.0%	0.4%	0.5%	0.0%	0.0%	2.8%	44.6%
1999-2008	110	1.4%	0.0%	0.0%	2.0%	0.1%	2.0%	0.6%	0.0%	15.2%	0.0%	16.5%	0.0%	1.0%	0.0%	0.0%	0.0%	2.1%	0.0%	30.7%	4.2%	24.3%

Appendix C.14. Percent distribution of Dome Creek Spring total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	221	0.9%	0.0%	0.0%	0.0%	0.0%	2.7%	0.0%	0.0%	4.5%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	1.8%	89.1%
1995	480	0.0%	0.0%	0.0%	0.8%	0.0%	1.9%	0.0%	0.0%	7.1%	0.0%	12.3%	0.0%	0.4%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	3.3%	72.5%
1996	379	0.0%	0.0%	0.0%	0.8%	1.1%	0.3%	0.0%	0.0%	6.1%	0.0%	38.8%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%	4.2%	46.4%
1997	293	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.3%	0.0%	8.5%	0.0%	31.1%	0.0%	1.7%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	55.6%
1998	431	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.4%	0.0%	68.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.9%	23.7%
1999	34	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	26.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	35.3%	20.6%	17.6%
2000	137	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.3%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	28.5%
2001	265	0.0%	0.0%	0.0%	0.0%	1.1%	2.3%	0.0%	0.0%	18.9%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	49.4%	3.4%	24.5%
2002	154	0.0%	0.0%	0.0%	11.0%	0.0%	11.7%	0.0%	0.0%	11.0%	0.0%	19.5%	0.0%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	43.5%
2003	152	0.0%	0.0%	0.0%	5.3%	0.0%	0.0%	7.2%	0.0%	12.5%	0.0%	59.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.1%
2004	11	0.0%	0.0%	0.0%	9.1%	0.0%	0.0%	0.0%	0.0%	9.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	54.5%	9.1%	18.2%
2005	214	0.0%	0.0%	0.0%	4.2%	0.0%	0.5%	0.0%	0.0%	4.2%	0.0%	56.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.9%	7.5%	26.2%
2006	147	0.0%	0.0%	0.0%	0.0%	0.0%	5.4%	0.0%	0.0%	4.8%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	57.1%	0.0%	32.0%
2007	32	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.4%	0.0%	0.0%	0.0%	3.1%	0.0%	0.0%	0.0%	31.3%	0.0%	37.5%	0.0%	18.8%
2008	26	15.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	61.5%	0.0%	23.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1979-2008	198	1.1%	0.0%	0.0%	2.1%	0.1%	1.7%	0.5%	0.0%	13.6%	0.0%	20.6%	0.0%	0.8%	0.0%	0.0%	0.1%	2.4%	0.0%	19.2%	3.6%	34.1%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	350	0.5%	0.0%	0.0%	0.4%	0.0%	2.3%	0.0%	0.0%	5.8%	0.0%	6.4%	0.0%	0.2%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	2.6%	80.8%
1996-1998	368	0.0%	0.0%	0.0%	0.3%	0.4%	0.5%	0.1%	0.0%	6.3%	0.0%	45.9%	0.0%	0.6%	0.0%	0.0%	0.5%	0.8%	0.0%	0.0%	2.7%	41.9%
1999-2008	117	1.5%	0.0%	0.0%	3.0%	0.1%	2.0%	0.7%	0.0%	17.3%	0.0%	15.8%	0.0%	1.0%	0.0%	0.0%	0.0%	3.2%	0.0%	28.8%	4.1%	22.4%

Appendix C.15. Percent distribution of Elk River reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	117	10 3%	0 0%	0 9%	14 5%	0 0%	12 8%	0 0%	0 0%	0 0%	2 6%	12 0%	0 0%	44 4%	0 0%	2 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1982	873	2 1%	1 5%	0 6%	5 2%	0 0%	14 8%	0 0%	0 0%	0 0%	0 9%	1 9%	0 0%	50 7%	0 0%	2 6%	1 0%	0 0%	0 0%	0 0%	0 0%	18 7%
1983	2640	2 9%	0 1%	0 0%	6 5%	0 0%	7 7%	0 2%	0 0%	0 0%	1 4%	0 0%	0 0%	11 9%	0 0%	0 5%	0 0%	0 3%	0 0%	0 0%	0 0%	68 5%
1984	1845	2 8%	0 0%	0 0%	5 1%	0 2%	6 6%	0 0%	0 0%	0 0%	0 7%	0 3%	0 0%	9 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	73 7%
1985	1346	2 2%	0 0%	0 0%	2 7%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	7 1%	0 0%	1 7%	0 0%	0 0%	0 0%	0 0%	2 5%	82 0%
1986	792	1 4%	0 0%	0 0%	3 2%	0 0%	13 1%	0 5%	0 0%	0 5%	2 3%	0 0%	0 0%	36 1%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	0 3%	41 7%
1987	1475	0 9%	0 0%	0 0%	4 2%	0 0%	6 6%	0 9%	0 0%	0 0%	0 9%	0 0%	0 0%	29 6%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	55 5%
1988	1337	0 6%	0 0%	0 0%	3 7%	0 0%	4 8%	0 0%	0 0%	0 0%	0 2%	0 2%	0 0%	26 6%	0 0%	0 8%	0 0%	0 3%	0 0%	0 0%	0 2%	62 5%
1989	898	0 8%	0 0%	0 4%	1 8%	0 6%	2 4%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	39 3%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	53 7%
1990	336	1 5%	0 0%	0 0%	0 0%	0 0%	3 9%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	25 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	67 6%
1991	331	0 0%	0 6%	0 0%	2 7%	0 0%	6 9%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	6 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	80 7%
1992	390	2 1%	1 0%	0 0%	0 0%	0 0%	6 9%	1 0%	0 0%	0 0%	0 0%	0 5%	0 0%	13 1%	0 0%	0 5%	0 8%	0 0%	0 0%	0 0%	9 2%	64 9%
1993	711	1 3%	0 0%	0 0%	1 7%	0 6%	4 4%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	22 1%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	9 7%	58 8%
1994	1266	2 1%	0 2%	0 0%	1 7%	0 5%	2 9%	0 0%	0 0%	0 0%	0 2%	0 7%	0 0%	21 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	20 2%	50 2%
1995	2671	1 5%	0 1%	0 4%	0 9%	0 2%	1 7%	0 3%	0 0%	0 0%	0 0%	0 7%	0 0%	16 1%	0 0%	0 1%	0 1%	0 0%	0 0%	0 0%	19 3%	58 6%
1996	4589	1 3%	0 0%	0 0%	0 0%	0 2%	0 1%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	30 1%	0 0%	0 2%	0 0%	0 2%	0 0%	0 0%	7 9%	59 8%
1997	3892	12 8%	0 1%	0 0%	1 6%	0 3%	1 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	19 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	18 6%	46 2%
1998	5907	6 9%	0 0%	0 0%	3 2%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	12 7%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	9 5%	67 4%
1999	5811	5 0%	0 0%	0 3%	1 5%	0 2%	0 0%	0 2%	0 0%	0 0%	0 0%	0 1%	0 0%	15 4%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	16 4%	60 9%
2000	4781	5 7%	0 0%	0 1%	1 4%	0 5%	0 7%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	22 9%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	14 1%	53 7%
2001	16488	2 3%	0 1%	0 2%	1 2%	0 0%	0 6%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	10 4%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	12 6%	71 8%
2002	10694	4 8%	0 0%	0 5%	3 6%	0 6%	0 9%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	11 3%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	6 5%	70 6%
2003	6102	5 3%	0 0%	0 3%	3 2%	0 4%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	17 7%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	18 6%	53 3%
2004	10820	3 7%	0 0%	0 2%	1 8%	0 3%	1 8%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	12 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	6 1%	73 9%
2005	2848	8 4%	0 0%	0 2%	4 7%	1 6%	4 2%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	16 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	12 3%	51 1%
2006	2665	5 5%	0 0%	0 0%	4 4%	1 4%	4 9%	1 5%	0 0%	0 0%	0 0%	0 0%	0 0%	20 5%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	11 5%	49 6%
2007	2204	7 3%	0 0%	0 7%	3 9%	0 9%	1 6%	0 5%	0 0%	0 3%	0 0%	0 0%	0 0%	25 3%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	17 3%	40 7%
2008	4007	3 8%	0 0%	0 0%	3 6%	1 6%	1 5%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	4 7%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	19 7%	64 2%
1979-2008	3494	3 8%	0 1%	0 2%	3 1%	0 4%	4 1%	0 3%	0 0%	0 0%	0 4%	0 7%	0 0%	20 7%	0 0%	0 6%	0 1%	0 0%	0 0%	0 0%	8 4%	57 1%
1979-1984	1369	4 5%	0 4%	0 4%	7 8%	0 0%	10 5%	0 0%	0 0%	0 0%	1 4%	3 5%	0 0%	29 3%	0 0%	1 4%	0 3%	0 1%	0 0%	0 0%	0 2%	40 2%
1985-1995	1050	1 3%	0 2%	0 1%	2 1%	0 2%	5 0%	0 4%	0 0%	0 0%	0 4%	0 4%	0 0%	22 1%	0 0%	0 6%	0 1%	0 0%	0 0%	0 0%	5 7%	61 5%
1996-1998	4796	7 0%	0 0%	0 0%	1 6%	0 2%	0 4%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	20 7%	0 0%	0 1%	0 0%	0 1%	0 0%	0 0%	12 0%	57 8%
1999-2008	6642	5 2%	0 0%	0 2%	2 9%	0 7%	1 7%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	15 6%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	13 5%	59 0%

Appendix C.16. Percent distribution of Elk River total fishing mortalities among fisheries and escapement.

Catch	Estimated # of	AABM							ISBM													
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	298	8 7%	0 3%	0 7%	13 8%	0 0%	18 5%	0 0%	0 0%	0 0%	2 3%	5 0%	0 0%	48 0%	0 0%	1 7%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1982	1087	2 9%	1 3%	0 7%	6 0%	0 0%	15 6%	0 0%	0 0%	0 0%	0 9%	1 7%	0 0%	52 3%	0 0%	2 4%	1 1%	0 0%	0 0%	0 0%	0 0%	15 0%
1983	2777	3 7%	0 1%	0 0%	6 9%	0 0%	8 3%	0 1%	0 0%	0 0%	1 5%	0 0%	0 0%	13 3%	0 0%	0 5%	0 0%	0 4%	0 0%	0 0%	0 0%	65 1%
1984	1901	3 8%	0 0%	0 0%	5 3%	0 2%	6 8%	0 0%	0 0%	0 0%	0 7%	0 3%	0 0%	10 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	71 5%
1985	1389	2 6%	0 0%	0 0%	3 1%	0 0%	1 7%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	8 1%	0 0%	2 0%	0 0%	0 0%	0 0%	0 0%	2 7%	79 5%
1986	918	2 1%	0 0%	0 0%	3 2%	0 0%	13 9%	0 4%	0 0%	0 4%	2 4%	0 0%	0 0%	40 4%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	0 2%	35 9%
1987	1617	1 1%	0 0%	0 0%	4 8%	0 0%	7 8%	0 9%	0 0%	0 0%	1 0%	0 0%	0 0%	32 3%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	0 0%	50 6%
1988	1439	0 8%	0 0%	0 0%	4 5%	0 0%	5 8%	0 0%	0 0%	0 0%	0 3%	0 2%	0 0%	29 0%	0 0%	0 8%	0 0%	0 3%	0 0%	0 0%	0 2%	58 0%
1989	956	1 0%	0 0%	0 5%	1 9%	0 6%	2 7%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	41 9%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	50 3%
1990	357	1 7%	0 0%	0 0%	0 0%	0 0%	4 5%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	28 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	63 6%
1991	351	0 0%	1 1%	0 0%	3 4%	0 0%	8 8%	0 0%	0 0%	0 0%	0 0%	1 7%	0 0%	8 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	76 1%
1992	497	4 4%	2 8%	0 0%	0 0%	0 0%	11 3%	1 2%	0 0%	0 0%	0 0%	0 4%	0 0%	18 5%	0 0%	0 6%	1 6%	0 0%	0 0%	0 0%	8 2%	50 9%
1993	878	3 2%	0 0%	0 0%	3 0%	0 6%	6 9%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	28 4%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	9 0%	47 6%
1994	1397	4 5%	0 6%	0 0%	2 4%	0 6%	3 4%	0 0%	0 0%	0 0%	0 2%	0 8%	0 0%	21 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	20 7%	45 5%
1995	2925	2 8%	0 2%	0 7%	1 5%	0 3%	2 6%	0 3%	0 0%	0 0%	0 0%	1 1%	0 0%	16 2%	0 0%	0 1%	0 1%	0 0%	0 0%	0 0%	20 5%	53 5%
1996	4816	2 3%	0 0%	0 0%	0 2%	0 2%	0 1%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	30 9%	0 0%	0 2%	0 0%	0 2%	0 0%	0 0%	8 6%	57 0%
1997	4395	16 0%	0 1%	0 0%	1 8%	0 4%	1 3%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	21 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	18 4%	41 0%
1998	6252	8 3%	0 0%	0 0%	3 6%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	14 1%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	10 0%	63 7%
1999	6407	7 7%	0 0%	0 4%	1 7%	0 3%	0 0%	0 2%	0 0%	0 0%	0 0%	0 1%	0 0%	17 7%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	16 5%	55 2%
2000	5444	8 0%	0 1%	0 1%	1 6%	0 6%	0 7%	0 1%	0 0%	0 1%	0 0%	0 0%	0 0%	26 1%	0 0%	0 7%	0 1%	0 0%	0 0%	0 0%	14 8%	47 2%
2001	17339	3 2%	0 1%	0 2%	1 5%	0 0%	0 6%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	11 8%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	13 4%	68 3%
2002	11332	6 0%	0 0%	0 6%	4 2%	0 8%	0 9%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	12 8%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	6 8%	66 6%
2003	6545	6 2%	0 0%	0 3%	3 6%	0 5%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	19 4%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	19 2%	49 7%
2004	11209	4 3%	0 0%	0 3%	2 0%	0 4%	1 8%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	13 1%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	6 5%	71 4%
2005	3094	9 9%	0 0%	0 2%	5 2%	1 9%	4 1%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	17 4%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	12 5%	47 0%
2006	3005	6 8%	0 0%	0 0%	5 0%	1 9%	5 2%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	23 3%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	11 6%	44 0%
2007	2550	9 7%	0 1%	0 9%	4 5%	0 9%	1 5%	0 4%	0 0%	0 3%	0 0%	0 0%	0 0%	27 3%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	17 8%	35 2%
2008	4234	5 1%	0 0%	0 0%	3 9%	1 9%	1 6%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	5 2%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	20 7%	60 7%
1979-2008	3765	4 9%	0 2%	0 2%	3 5%	0 4%	4 9%	0 3%	0 0%	0 0%	0 4%	0 4%	0 0%	22 7%	0 0%	0 6%	0 1%	0 0%	0 0%	0 0%	8 6%	52 5%
1979-1984	1516	4 8%	0 4%	0 4%	8 0%	0 0%	12 3%	0 0%	0 0%	0 0%	1 4%	1 8%	0 0%	31 0%	0 0%	1 1%	0 5%	0 1%	0 0%	0 0%	0 2%	37 9%
1985-1995	1157	2 2%	0 4%	0 1%	2 5%	0 2%	6 3%	0 4%	0 0%	0 0%	0 5%	0 4%	0 0%	24 7%	0 0%	0 6%	0 2%	0 0%	0 0%	0 0%	5 8%	55 6%
1996-1998	5154	8 9%	0 0%	0 0%	1 9%	0 3%	0 5%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	22 0%	0 0%	0 1%	0 0%	0 1%	0 0%	0 0%	12 3%	53 9%
1999-2008	7116	6 7%	0 0%	0 3%	3 3%	0 9%	1 7%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	17 4%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	14 0%	54 5%

Appendix C.17. Percent distribution of Elwha River reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	642	24 3%	1 7%	0 0%	2 3%	0 5%	18 1%	0 9%	0 8%	6 4%	0 8%	6 2%	0 0%	0 9%	0 0%	0 0%	12 1%	13 4%	0 0%	0 2%	0 0%	11 4%
1987	401	14 7%	0 0%	0 0%	4 5%	2 0%	14 2%	2 5%	0 7%	9 0%	2 2%	5 7%	0 0%	3 0%	0 2%	0 0%	6 5%	18 7%	0 0%	0 0%	0 0%	16 0%
1988	430	5 3%	0 5%	0 5%	3 7%	2 3%	13 7%	6 0%	0 5%	0 0%	1 4%	1 2%	0 0%	4 4%	0 0%	0 0%	8 1%	8 4%	0 0%	4 0%	0 0%	40 0%
1989	279	6 1%	1 8%	0 0%	4 7%	2 2%	5 7%	0 0%	0 0%	0 0%	3 2%	0 0%	0 0%	2 9%	0 0%	0 4%	9 3%	13 3%	0 0%	2 2%	0 0%	48 4%
1990	39	0 0%	0 0%	0 0%	12 8%	0 0%	15 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 1%	10 3%	0 0%	5 1%	0 0%	51 3%
1991	14	0 0%	0 0%	0 0%	0 0%	0 0%	14 3%	0 0%	0 0%	0 0%	0 0%	7 1%	0 0%	7 1%	0 0%	0 0%	71 4%	0 0%	0 0%	0 0%	0 0%	0 0%
1992	58	1 7%	0 0%	0 0%	0 0%	0 0%	43 1%	3 4%	0 0%	0 0%	0 0%	8 6%	0 0%	17 2%	0 0%	0 0%	0 0%	22 4%	0 0%	0 0%	0 0%	3 4%
1993	129	9 3%	0 0%	0 0%	0 0%	0 0%	14 0%	11 6%	1 6%	10 9%	0 0%	0 0%	0 0%	3 1%	0 0%	0 0%	0 0%	28 7%	0 0%	3 1%	0 0%	17 8%
1994	76	3 9%	0 0%	0 0%	9 2%	0 0%	17 1%	0 0%	3 9%	2 6%	0 0%	7 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	55 3%
1995	117	0 0%	0 0%	0 0%	0 0%	2 6%	26 5%	2 6%	0 0%	0 0%	2 6%	6 0%	0 0%	1 7%	0 0%	0 0%	0 9%	10 3%	0 0%	0 0%	0 0%	47 0%
1996	289	3 5%	0 0%	0 0%	0 0%	0 0%	0 0%	3 1%	0 0%	3 1%	0 0%	2 1%	0 0%	0 7%	0 0%	0 0%	0 0%	6 2%	0 0%	0 0%	0 0%	81 3%
1997	182	13 7%	0 0%	0 0%	1 6%	0 0%	4 9%	0 0%	0 0%	6 6%	0 0%	3 3%	0 0%	1 1%	0 0%	0 0%	0 0%	11 5%	0 0%	0 0%	0 0%	57 1%
1998	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1999	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2000	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2001	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2005	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2006	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2007	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979-2008	221	6 9%	0 3%	0 0%	3 2%	0 8%	15 6%	2 5%	0 6%	3 2%	0 9%	4 0%	0 0%	3 5%	0 0%	0 0%	9 5%	11 9%	0 0%	1 2%	0 0%	35 8%
1979-1984	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	218	6 5%	0 4%	0 0%	3 7%	1 0%	18 2%	2 7%	0 7%	2 9%	1 0%	4 3%	0 0%	4 0%	0 0%	0 0%	11 4%	12 5%	0 0%	1 4%	0 0%	29 1%
1996-1998	236	8 6%	0 0%	0 0%	0 8%	0 0%	2 5%	1 6%	0 0%	4 9%	0 0%	2 7%	0 0%	0 9%	0 0%	0 0%	0 0%	8 9%	0 0%	0 0%	0 0%	69 2%
1999-2008	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%

Appendix C.18. Percent distribution of Elwha River total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	721	23.9%	3.2%	0.0%	2.5%	0.7%	17.6%	1.1%	0.8%	6.0%	1.0%	6.0%	0.0%	1.1%	0.0%	0.0%	11.1%	14.8%	0.0%	0.1%	0.0%	10.1%
1987	463	14.5%	0.0%	0.0%	5.2%	1.9%	16.0%	2.4%	0.9%	8.4%	2.6%	5.2%	0.0%	3.0%	0.2%	0.0%	5.8%	20.1%	0.0%	0.0%	0.0%	13.8%
1988	463	5.4%	0.9%	0.6%	3.9%	2.4%	15.6%	6.0%	0.4%	0.0%	1.5%	1.3%	0.0%	4.5%	0.0%	0.0%	7.8%	8.9%	0.0%	3.7%	0.0%	37.1%
1989	299	6.0%	5.7%	0.0%	4.7%	2.0%	5.7%	0.0%	0.0%	0.0%	3.0%	0.0%	0.0%	2.7%	0.0%	0.3%	8.7%	14.0%	0.0%	2.0%	0.0%	45.2%
1990	41	0.0%	0.0%	0.0%	12.2%	0.0%	17.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.9%	12.2%	0.0%	4.9%	0.0%	48.8%
1991	28	3.6%	0.0%	0.0%	0.0%	0.0%	25.0%	0.0%	0.0%	0.0%	0.0%	3.6%	0.0%	7.1%	0.0%	0.0%	50.0%	10.7%	0.0%	0.0%	0.0%	0.0%
1992	81	2.5%	0.0%	0.0%	1.2%	0.0%	38.3%	3.7%	1.2%	1.2%	0.0%	7.4%	0.0%	13.6%	0.0%	0.0%	0.0%	28.4%	0.0%	0.0%	0.0%	2.5%
1993	157	12.1%	0.0%	0.0%	0.0%	0.0%	15.3%	10.2%	2.5%	11.5%	0.0%	0.0%	0.0%	2.5%	0.0%	0.0%	0.0%	28.7%	0.0%	2.5%	0.0%	14.6%
1994	86	8.1%	0.0%	0.0%	9.3%	0.0%	18.6%	0.0%	4.7%	2.3%	0.0%	8.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.8%
1995	153	0.0%	0.0%	0.0%	0.0%	2.6%	32.7%	2.6%	0.0%	0.0%	3.9%	6.5%	0.0%	1.3%	0.0%	0.0%	0.7%	13.7%	0.0%	0.0%	0.0%	35.9%
1996	311	4.2%	0.0%	0.0%	1.3%	0.0%	1.6%	3.2%	0.0%	3.5%	0.0%	2.6%	0.0%	0.6%	0.0%	0.0%	0.0%	7.4%	0.0%	0.0%	0.0%	75.6%
1997	197	15.2%	0.0%	0.5%	2.0%	0.0%	5.1%	0.0%	0.0%	6.6%	0.0%	3.0%	0.0%	1.0%	0.0%	0.0%	0.0%	13.7%	0.0%	0.0%	0.0%	52.8%
1998	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1999	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2000	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2001	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2005	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2006	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2007	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979-2008	250	8.0%	0.8%	0.1%	3.5%	0.8%	17.4%	2.4%	0.9%	3.3%	1.0%	3.6%	0.0%	3.1%	0.0%	0.0%	7.4%	14.4%	0.0%	1.1%	0.0%	32.1%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	249	7.6%	1.0%	0.1%	3.9%	1.0%	20.2%	2.6%	1.1%	2.9%	1.2%	3.8%	0.0%	3.6%	0.0%	0.0%	8.9%	15.2%	0.0%	1.3%	0.0%	25.7%
1996-1998	254	9.7%	0.0%	0.3%	1.7%	0.0%	3.3%	1.6%	0.0%	5.1%	0.0%	2.8%	0.0%	0.8%	0.0%	0.0%	0.0%	10.6%	0.0%	0.0%	0.0%	64.2%
1999-2008	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Appendix C.19. Percent distribution of George Adams Fall Fingerling reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	796	0.0%	0.0%	0.0%	0.0%	0.0%	20.9%	0.0%	0.3%	4.1%	0.5%	0.6%	0.0%	3.0%	0.0%	0.4%	30.4%	10.3%	0.0%	7.7%	0.0%	21.9%
1983	575	0.0%	0.0%	0.0%	0.0%	0.0%	15.8%	0.5%	0.0%	3.5%	1.6%	5.7%	0.0%	0.2%	0.0%	0.9%	21.0%	24.9%	0.0%	8.7%	0.0%	17.2%
1984	979	0.0%	0.1%	0.0%	0.5%	0.4%	18.1%	0.0%	1.2%	4.5%	3.2%	1.9%	0.0%	2.2%	0.0%	0.4%	12.7%	20.2%	0.0%	18.6%	0.0%	15.9%
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	1657	0.0%	0.2%	0.0%	0.0%	0.0%	8.5%	1.7%	0.0%	3.8%	0.0%	4.8%	0.0%	12.9%	0.2%	0.9%	18.1%	14.8%	0.0%	20.3%	1.4%	12.2%
1990	1340	0.1%	0.0%	0.0%	0.4%	0.0%	19.3%	5.0%	0.0%	4.7%	0.3%	1.6%	0.0%	15.0%	0.0%	0.4%	11.3%	17.7%	0.0%	17.0%	0.3%	6.8%
1991	982	0.2%	0.0%	0.0%	0.0%	0.0%	18.4%	4.5%	0.0%	2.2%	0.0%	0.4%	0.0%	8.6%	0.0%	0.0%	18.8%	17.2%	0.0%	14.5%	0.8%	14.4%
1992	192	0.0%	0.0%	0.0%	0.0%	0.0%	15.6%	0.0%	0.0%	2.1%	0.0%	5.7%	0.0%	20.3%	0.0%	0.0%	2.6%	30.6%	0.0%	6.8%	0.0%	7.3%
1993	114	0.0%	0.0%	0.0%	0.0%	0.0%	34.2%	7.9%	0.9%	3.5%	0.0%	0.0%	0.0%	8.8%	0.0%	0.0%	4.4%	21.9%	0.0%	0.0%	0.0%	18.4%
1994	43	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.0%	7.0%	0.0%	0.0%	0.0%	72.1%
1995	206	0.0%	0.0%	0.0%	0.0%	0.0%	7.8%	3.9%	0.0%	3.9%	0.0%	2.4%	0.0%	1.0%	0.0%	0.0%	4.4%	18.4%	0.0%	0.0%	0.0%	58.3%
1996	339	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.7%	0.0%	12.7%	0.0%	2.1%	0.0%	5.9%	0.0%	0.6%	0.0%	13.3%	0.0%	0.0%	0.0%	60.8%
1997	363	1.9%	0.0%	0.0%	0.0%	0.0%	4.4%	1.7%	0.0%	3.0%	0.0%	0.3%	0.0%	3.0%	0.0%	0.0%	0.8%	18.7%	0.0%	0.0%	0.0%	66.1%
1998	447	0.7%	0.2%	0.0%	0.0%	0.0%	0.2%	1.1%	0.0%	0.7%	0.0%	0.0%	0.0%	1.8%	0.0%	0.0%	1.8%	7.2%	0.0%	0.0%	0.0%	86.4%
1999	831	0.4%	0.0%	0.0%	0.0%	0.0%	0.8%	9.0%	0.0%	2.5%	0.0%	0.0%	0.0%	4.9%	0.0%	1.3%	2.3%	9.5%	0.0%	0.8%	0.0%	68.6%
2000	826	0.4%	0.0%	0.0%	0.4%	0.0%	21.1%	8.5%	0.0%	2.7%	0.0%	0.1%	0.0%	3.5%	0.0%	0.0%	0.4%	5.9%	0.0%	0.0%	11.6%	45.5%
2001	779	0.8%	0.0%	0.0%	0.0%	0.1%	12.3%	2.1%	0.0%	2.2%	0.0%	0.0%	0.0%	6.4%	0.0%	1.0%	5.8%	8.5%	0.0%	5.4%	0.5%	55.1%
2002	961	1.5%	0.0%	0.0%	1.0%	0.0%	11.2%	10.2%	0.0%	1.8%	0.0%	0.0%	0.0%	4.1%	0.0%	1.0%	7.2%	4.7%	0.0%	3.9%	9.4%	44.1%
2003	960	0.5%	0.1%	0.0%	0.0%	0.0%	11.6%	2.0%	0.0%	2.7%	0.0%	0.0%	0.0%	6.4%	0.0%	0.2%	4.2%	6.1%	0.0%	6.3%	11.9%	47.9%
2004	1315	0.5%	0.2%	0.0%	0.0%	0.0%	14.7%	3.0%	0.2%	2.3%	0.0%	0.3%	0.0%	6.1%	0.0%	0.5%	7.2%	5.5%	0.0%	4.6%	1.2%	53.7%
2005	1545	0.3%	0.0%	0.0%	0.1%	0.8%	11.8%	8.4%	0.0%	5.6%	0.0%	0.0%	0.0%	6.8%	0.0%	1.3%	2.6%	6.6%	0.0%	2.8%	6.3%	46.3%
2006	1089	0.4%	0.2%	0.0%	0.7%	0.0%	12.2%	1.8%	0.0%	4.4%	0.0%	0.0%	0.0%	5.1%	0.0%	0.4%	7.6%	8.4%	0.0%	6.2%	1.3%	51.2%
2007	1595	0.2%	0.3%	0.0%	0.0%	0.0%	10.1%	1.6%	0.0%	2.4%	0.0%	0.0%	0.0%	3.5%	0.0%	0.2%	2.5%	11.2%	0.0%	10.3%	11.0%	46.6%
2008	1114	0.0%	0.0%	0.0%	0.0%	0.0%	3.9%	4.0%	0.0%	2.2%	0.0%	0.0%	0.0%	1.3%	0.4%	0.7%	6.1%	8.3%	0.0%	10.1%	0.0%	63.0%
1979-2008	828	0.3%	0.1%	0.0%	0.1%	0.1%	11.9%	3.6%	0.4%	3.4%	0.2%	1.1%	0.0%	5.7%	0.0%	0.4%	8.1%	13.3%	0.0%	6.3%	2.4%	42.6%
1979-1984	783	0.0%	0.0%	0.0%	0.2%	0.1%	18.3%	0.2%	0.5%	4.0%	1.7%	2.8%	0.0%	1.8%	0.0%	0.6%	21.4%	18.5%	0.0%	11.6%	0.0%	18.3%
1985-1995	648	0.1%	0.0%	0.0%	0.1%	0.0%	14.6%	3.3%	1.1%	2.9%	0.0%	2.1%	0.0%	9.5%	0.0%	0.2%	10.5%	19.5%	0.0%	8.4%	0.4%	27.1%
1996-1998	383	0.9%	0.1%	0.0%	0.0%	0.0%	1.5%	2.5%	0.0%	5.5%	0.0%	0.8%	0.0%	3.6%	0.0%	0.2%	0.9%	13.1%	0.0%	0.0%	0.0%	71.1%
1999-2008	1100	0.5%	0.1%	0.0%	0.2%	0.1%	11.0%	5.1%	0.0%	2.9%	0.0%	0.0%	0.0%	4.8%	0.0%	0.7%	4.8%	7.5%	0.0%	5.0%	5.3%	52.2%

Appendix C.20. Percent distribution of George Adams Fall Fingerling total fishing mortalities among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	859	0.0%	0.0%	0.0%	0.0%	0.0%	21.7%	0.0%	0.2%	4.1%	0.6%	0.8%	0.0%	2.9%	0.0%	0.5%	29.2%	12.3%	0.0%	7.5%	0.0%	20.3%
1983	899	0.0%	0.0%	0.0%	0.0%	0.0%	12.7%	0.3%	0.0%	2.4%	1.2%	4.2%	0.0%	0.1%	0.0%	0.6%	19.7%	41.7%	0.0%	6.0%	0.0%	11.0%
1984	1066	0.0%	0.1%	0.0%	0.6%	0.5%	18.1%	0.0%	1.2%	4.4%	3.2%	1.8%	0.0%	2.3%	0.0%	0.4%	12.9%	22.1%	0.0%	17.8%	0.0%	14.6%
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	1955	0.0%	0.8%	0.0%	0.1%	0.0%	10.3%	1.8%	0.0%	3.9%	0.1%	4.3%	0.0%	13.0%	0.2%	0.8%	17.5%	17.6%	0.0%	17.9%	1.4%	10.3%
1990	1547	0.7%	0.0%	0.0%	0.5%	0.0%	21.2%	4.7%	0.0%	4.9%	0.4%	1.5%	0.0%	15.5%	0.0%	0.4%	10.5%	18.2%	0.0%	15.4%	0.3%	5.9%
1991	1059	0.2%	0.0%	0.0%	0.0%	0.0%	19.5%	4.5%	0.0%	2.3%	0.0%	0.4%	0.0%	8.7%	0.0%	0.0%	17.8%	18.8%	0.0%	13.7%	0.8%	13.3%
1992	217	0.0%	0.0%	0.0%	0.0%	0.0%	16.6%	0.0%	0.0%	1.8%	0.0%	5.1%	0.0%	20.3%	0.0%	0.0%	2.3%	41.5%	0.0%	6.0%	0.0%	6.5%
1993	135	0.0%	0.0%	0.0%	0.0%	0.0%	34.1%	7.4%	1.5%	3.7%	0.0%	0.0%	0.0%	8.1%	0.0%	0.0%	4.4%	25.2%	0.0%	0.0%	0.0%	15.6%
1994	48	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%	10.4%	0.0%	0.0%	0.0%	64.6%
1995	261	0.0%	0.0%	0.0%	0.0%	0.0%	9.6%	3.8%	0.0%	4.2%	0.0%	3.4%	0.0%	0.8%	0.0%	0.0%	4.2%	28.0%	0.0%	0.0%	0.0%	46.0%
1996	369	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	4.6%	0.0%	14.4%	0.0%	2.2%	0.0%	5.7%	0.0%	0.5%	0.0%	15.4%	0.0%	0.0%	0.0%	55.8%
1997	398	1.8%	0.0%	0.0%	0.0%	0.0%	4.8%	1.5%	0.0%	3.0%	0.0%	0.8%	0.0%	3.0%	0.0%	0.0%	0.8%	24.1%	0.0%	0.0%	0.0%	60.3%
1998	585	0.7%	0.3%	0.0%	0.0%	0.0%	0.2%	1.2%	0.0%	0.9%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	2.1%	27.0%	0.0%	0.0%	0.0%	66.0%
1999	897	0.6%	0.0%	0.0%	0.0%	0.0%	0.9%	9.1%	0.0%	3.1%	0.0%	0.0%	0.0%	5.8%	0.0%	1.4%	2.2%	12.7%	0.0%	0.6%	0.0%	63.5%
2000	948	0.4%	0.0%	0.0%	0.4%	0.0%	20.6%	8.8%	0.0%	2.8%	0.0%	0.2%	0.0%	3.6%	0.0%	0.0%	0.3%	11.5%	0.0%	0.0%	11.7%	39.7%
2001	889	0.9%	0.0%	0.0%	0.0%	0.1%	11.7%	2.1%	0.0%	2.5%	0.0%	0.0%	0.0%	6.9%	0.0%	1.0%	5.5%	15.4%	0.0%	5.1%	0.6%	48.3%
2002	1053	1.7%	0.0%	0.0%	1.1%	0.0%	11.0%	11.1%	0.0%	1.9%	0.0%	0.0%	0.0%	4.4%	0.0%	1.0%	7.0%	7.0%	0.0%	3.6%	9.8%	40.3%
2003	1044	0.6%	0.2%	0.0%	0.0%	0.0%	11.5%	2.3%	0.0%	3.1%	0.0%	0.0%	0.0%	6.9%	0.0%	0.2%	4.1%	9.1%	0.0%	6.0%	12.5%	43.6%
2004	1451	0.6%	0.5%	0.0%	0.0%	0.0%	14.5%	3.3%	0.1%	2.5%	0.0%	0.6%	0.0%	6.7%	0.0%	0.6%	7.6%	8.5%	0.0%	4.5%	1.3%	48.7%
2005	1734	0.3%	0.0%	0.0%	0.1%	1.0%	11.4%	8.9%	0.0%	6.4%	0.0%	0.0%	0.0%	7.3%	0.0%	1.3%	2.5%	10.0%	0.0%	2.7%	6.8%	41.2%
2006	1184	0.4%	0.3%	0.0%	0.8%	0.0%	11.9%	1.9%	0.0%	5.1%	0.0%	0.0%	0.0%	5.7%	0.0%	0.4%	7.5%	11.5%	0.0%	6.0%	1.4%	47.1%
2007	1942	0.3%	0.3%	0.0%	0.0%	0.0%	9.4%	1.6%	0.0%	2.5%	0.0%	0.0%	0.0%	3.5%	0.0%	0.2%	2.4%	22.1%	0.0%	8.9%	10.5%	38.3%
2008	1200	0.0%	0.0%	0.0%	0.0%	0.0%	3.9%	4.4%	0.0%	2.8%	0.0%	0.0%	0.0%	1.5%	0.4%	0.7%	6.4%	11.3%	0.0%	10.1%	0.0%	56.5%
1979-2008	945	0.4%	0.1%	0.0%	0.2%	0.1%	12.0%	3.6%	0.5%	3.6%	0.2%	1.1%	0.0%	5.8%	0.0%	0.4%	8.0%	18.3%	0.0%	5.7%	2.5%	37.4%
1979-1984	941	0.0%	0.0%	0.0%	0.2%	0.2%	17.5%	0.1%	0.5%	3.6%	1.7%	2.3%	0.0%	1.8%	0.0%	0.5%	20.6%	25.4%	0.0%	10.4%	0.0%	15.3%
1985-1995	746	0.1%	0.1%	0.0%	0.1%	0.0%	15.9%	3.2%	1.4%	3.0%	0.1%	2.1%	0.0%	9.5%	0.0%	0.2%	10.5%	22.8%	0.0%	7.6%	0.4%	23.2%
1996-1998	451	0.8%	0.1%	0.0%	0.0%	0.0%	2.1%	2.4%	0.0%	6.1%	0.0%	1.0%	0.0%	3.5%	0.0%	0.2%	0.9%	22.2%	0.0%	0.0%	0.0%	60.7%
1999-2008	1234	0.6%	0.1%	0.0%	0.3%	0.1%	10.7%	5.4%	0.0%	3.3%	0.0%	0.1%	0.0%	5.2%	0.0%	0.7%	4.6%	11.9%	0.0%	4.7%	5.4%	46.9%

Appendix C.21. Percent distribution of Hanford Wild Brights reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				Esc.
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport		
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1990	440	8.4%	0.5%	0.0%	4.3%	0.0%	8.4%	3.6%	0.0%	0.0%	0.5%	0.7%	0.0%	0.5%	0.0%	0.9%	0.0%	0.0%	0.0%	22.5%	6.1%		43.6%
1991	591	8.6%	0.0%	1.4%	9.5%	0.5%	4.7%	0.0%	0.0%	0.8%	0.2%	0.0%	0.0%	1.0%	0.0%	0.5%	0.0%	0.0%	0.0%	23.4%	3.9%		45.5%
1992	287	16.4%	1.7%	1.4%	5.9%	0.0%	16.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	1.0%	0.0%	0.0%	0.0%	18.5%	1.7%		36.2%
1993	378	14.0%	0.0%	2.1%	2.9%	1.3%	5.3%	1.9%	0.0%	0.0%	0.0%	2.4%	0.0%	3.7%	0.0%	0.0%	0.0%	0.8%	0.0%	16.1%	7.4%		42.1%
1994	724	14.4%	0.8%	0.0%	4.8%	0.0%	4.4%	0.0%	0.0%	0.0%	0.3%	1.4%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	12.6%	5.4%		55.2%
1995	655	11.0%	0.0%	3.7%	4.3%	0.0%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.8%	7.0%		62.0%
1996	591	9.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	28.4%	7.8%		53.5%
1997	632	16.3%	0.6%	0.9%	3.6%	2.4%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	13.9%	7.0%		53.5%
1998	326	12.9%	0.0%	0.0%	8.6%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	17.5%	6.4%		54.0%
1999	259	9.7%	0.4%	1.9%	12.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.0%	6.2%		57.9%
2000	219	16.4%	0.5%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	29.2%	5.5%		46.6%
2001	346	4.3%	1.2%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	20.5%	14.5%		57.5%
2002	841	13.9%	0.0%	1.3%	0.7%	0.5%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.2%	0.0%	0.0%	0.0%	10.0%	10.7%		58.3%
2003	1488	12.6%	0.0%	0.9%	3.9%	0.9%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.3%	0.0%	0.0%	0.0%	14.3%	9.2%		57.0%
2004	1782	17.6%	0.0%	3.0%	6.2%	2.9%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.2%	0.3%	0.0%	0.0%	0.0%	13.7%	4.1%		48.7%
2005	445	11.9%	0.0%	0.0%	8.1%	2.5%	4.3%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%	0.0%	1.1%	0.0%	0.0%	0.0%	12.4%	15.3%		41.1%
2006	542	17.2%	0.0%	0.9%	5.0%	0.0%	2.8%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	15.3%	19.4%		36.5%
2007	260	21.9%	0.0%	1.2%	6.9%	6.9%	3.1%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	7.7%	12.7%		37.3%
2008	182	27.5%	0.0%	4.4%	1.6%	2.2%	3.8%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	21.4%	8.2%		28.0%
1979-2008	578	13.9%	0.3%	1.4%	4.7%	1.1%	3.3%	0.6%	0.0%	0.0%	0.0%	0.3%	0.0%	0.9%	0.0%	0.2%	0.0%	0.0%	0.0%	16.8%	8.3%		48.1%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%
1985-1995	512	12.1%	0.5%	1.4%	5.3%	0.3%	6.9%	0.9%	0.0%	0.1%	0.1%	0.7%	0.0%	1.2%	0.0%	0.4%	0.0%	0.1%	0.0%	17.1%	5.3%		47.4%
1996-1998	516	13.0%	0.2%	0.3%	4.1%	1.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	19.9%	7.1%		53.6%
1999-2008	636	15.3%	0.2%	1.6%	4.4%	1.6%	2.0%	0.6%	0.0%	0.0%	0.0%	0.1%	0.0%	0.9%	0.0%	0.2%	0.0%	0.0%	0.0%	15.7%	10.6%		46.9%

Appendix C.22. Percent distribution of Hanford Wild Brights total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	470	9.4%	0.9%	0.4%	5.1%	0.0%	8.9%	3.6%	0.0%	0.0%	0.4%	0.6%	0.0%	0.6%	0.0%	0.9%	0.0%	0.0%	0.0%	21.7%	6.6%	40.9%
1991	625	10.6%	0.0%	1.4%	10.4%	0.5%	5.1%	0.0%	0.0%	1.0%	0.2%	0.0%	0.0%	1.1%	0.0%	0.5%	0.0%	0.0%	0.0%	22.2%	4.0%	43.0%
1992	342	17.5%	8.5%	1.5%	6.7%	0.0%	16.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.9%	0.0%	0.0%	0.0%	15.8%	1.5%	30.4%
1993	423	19.1%	0.0%	2.1%	3.1%	1.2%	6.1%	1.9%	0.0%	0.0%	0.0%	2.1%	0.0%	3.8%	0.0%	0.0%	0.0%	0.9%	0.0%	14.7%	7.3%	37.6%
1994	779	17.1%	2.1%	0.0%	5.3%	0.0%	4.7%	0.0%	0.0%	0.0%	0.3%	1.3%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	11.8%	5.5%	51.3%
1995	700	13.0%	0.0%	4.1%	5.4%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.3%	7.1%	58.0%
1996	631	12.7%	0.0%	0.0%	1.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	27.1%	7.9%	50.1%
1997	662	17.8%	0.9%	1.1%	3.6%	3.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	13.4%	7.3%	51.1%
1998	344	14.8%	0.0%	0.0%	9.6%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.9%	6.7%	51.2%
1999	281	13.2%	1.1%	2.1%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.4%	6.4%	53.4%
2000	234	20.1%	0.4%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	27.8%	5.6%	43.6%
2001	365	6.0%	1.6%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	15.3%	54.5%
2002	903	17.7%	0.0%	1.4%	0.8%	0.6%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.2%	0.0%	0.0%	0.0%	9.5%	11.1%	54.3%
2003	1537	13.7%	0.0%	0.9%	4.1%	1.1%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.3%	0.0%	0.0%	0.0%	14.1%	9.7%	55.2%
2004	1873	18.9%	0.0%	3.1%	6.6%	3.9%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.2%	0.4%	0.0%	0.0%	0.0%	13.1%	4.2%	46.3%
2005	472	13.1%	0.0%	0.0%	8.7%	3.0%	4.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.0%	1.1%	0.0%	0.0%	0.0%	11.9%	15.9%	38.8%
2006	575	18.8%	0.0%	1.0%	5.2%	0.0%	2.8%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	14.6%	19.8%	34.4%
2007	287	25.4%	0.0%	1.0%	7.3%	7.7%	2.8%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	7.0%	12.5%	33.8%
2008	201	33.3%	0.0%	4.5%	1.5%	2.0%	3.5%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	19.4%	8.0%	25.4%
1979-2008	616	16.4%	0.8%	1.5%	5.1%	1.2%	3.4%	0.6%	0.0%	0.1%	0.0%	0.3%	0.0%	0.9%	0.0%	0.2%	0.0%	0.0%	0.0%	15.9%	8.5%	44.9%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	556	14.4%	1.9%	1.6%	6.0%	0.3%	7.4%	0.9%	0.0%	0.2%	0.1%	0.7%	0.0%	1.2%	0.0%	0.4%	0.0%	0.2%	0.0%	15.9%	5.3%	43.5%
1996-1998	546	15.1%	0.3%	0.4%	4.7%	1.3%	0.5%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	19.1%	7.3%	50.8%
1999-2008	673	18.0%	0.3%	1.8%	4.7%	1.8%	1.9%	0.6%	0.0%	0.0%	0.0%	0.1%	0.0%	0.9%	0.0%	0.2%	0.0%	0.0%	0.0%	14.9%	10.9%	44.0%

Appendix C.23. Percent distribution of Hoko Fall Fingerling reported catch among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	248	4.8%	0.8%	0.0%	7.7%	0.0%	10.9%	0.0%	0.0%	1.6%	0.4%	21.4%	0.0%	0.8%	0.0%	0.4%	0.4%	21.4%	0.0%	0.0%	0.0%	29.4%
1990	588	15.8%	1.9%	0.5%	8.0%	0.0%	17.0%	0.0%	0.5%	0.3%	0.7%	4.3%	0.0%	0.5%	0.0%	0.0%	0.7%	14.5%	0.0%	0.2%	0.0%	35.2%
1991	1242	15.2%	0.0%	0.0%	5.0%	0.6%	6.9%	0.5%	0.0%	0.4%	1.1%	1.0%	0.0%	0.2%	0.0%	0.1%	1.0%	8.1%	0.0%	0.1%	0.0%	59.8%
1992	572	7.7%	1.7%	1.2%	4.4%	0.7%	9.8%	2.1%	0.0%	0.5%	1.2%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	0.0%	0.2%	0.0%	66.6%
1993	303	6.6%	0.0%	2.0%	6.6%	0.0%	14.9%	0.0%	0.0%	0.3%	0.0%	5.3%	0.0%	0.0%	0.0%	0.3%	0.0%	4.3%	0.0%	0.3%	0.0%	59.4%
1994	332	13.6%	2.1%	2.4%	14.8%	0.0%	11.4%	2.1%	0.0%	2.1%	0.6%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	47.9%
1995	748	12.6%	0.0%	4.1%	6.1%	0.5%	2.9%	0.0%	0.0%	0.8%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	71.8%
1996	639	10.5%	0.0%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	85.3%
1997	886	13.9%	0.0%	0.0%	1.5%	0.6%	1.0%	0.8%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	81.6%
1998	1130	9.0%	0.0%	0.4%	5.9%	0.0%	0.0%	0.4%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	84.1%
1999	751	6.4%	0.0%	0.7%	7.2%	1.2%	0.0%	1.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	82.8%
2000	503	4.4%	0.2%	1.8%	0.0%	0.0%	0.2%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	92.0%
2001	515	6.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	90.1%
2002	671	17.3%	0.0%	0.9%	4.3%	3.0%	1.5%	0.0%	0.0%	2.1%	0.3%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	69.6%
2003	966	13.8%	0.1%	2.6%	3.0%	0.0%	0.0%	0.5%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	78.2%
2004	1069	10.9%	0.0%	1.0%	8.3%	1.5%	0.7%	0.8%	0.0%	4.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.4%	0.0%	0.0%	0.0%	71.4%
2005	591	11.2%	0.2%	1.2%	11.0%	5.2%	0.0%	1.2%	0.0%	4.9%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	63.5%
2006	773	9.8%	1.3%	2.2%	6.0%	3.4%	0.0%	1.3%	0.0%	0.6%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	74.3%
2007	320	19.1%	0.3%	4.4%	8.4%	5.6%	0.9%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	1.3%	0.0%	0.0%	0.0%	57.8%
2008	115	21.7%	0.0%	7.8%	10.4%	1.4%	0.0%	0.0%	0.0%	6.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	36.5%
1979-2008	647	11.5%	0.4%	1.9%	5.9%	2.0%	3.9%	0.6%	0.0%	1.5%	0.2%	1.8%	0.0%	0.2%	0.0%	0.2%	0.1%	2.7%	0.0%	0.1%	0.0%	66.9%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	576	10.9%	0.9%	1.5%	7.5%	0.3%	10.5%	0.7%	0.1%	0.9%	0.6%	5.2%	0.0%	0.2%	0.0%	0.1%	0.3%	7.3%	0.0%	0.1%	0.0%	52.9%
1996-1998	885	11.1%	0.0%	1.4%	2.5%	0.2%	0.3%	0.4%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.2%	0.0%	83.7%
1999-2008	625	12.1%	0.2%	2.4%	5.9%	3.7%	0.3%	0.5%	0.0%	2.4%	0.0%	0.0%	0.0%	0.2%	0.0%	0.3%	0.0%	0.3%	0.0%	0.0%	0.0%	71.6%

Appendix C.24. Percent distribution of Hoko Fall Fingerling total fishing mortalities among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	352	10 8%	3 4%	0 3%	8 5%	0 0%	13 6%	0 0%	0 0%	1 7%	1 1%	16 2%	0 0%	0 6%	0 0%	0 6%	1 4%	21 0%	0 0%	0 0%	0 0%	20 7%
1990	675	18 1%	3 9%	0 6%	8 6%	0 0%	17 2%	0 0%	0 4%	0 3%	0 9%	3 7%	0 0%	0 6%	0 0%	0 0%	0 6%	14 4%	0 0%	0 1%	0 0%	30 7%
1991	1325	18 0%	0 0%	0 1%	5 2%	0 5%	7 1%	0 5%	0 0%	0 4%	1 1%	0 9%	0 0%	0 2%	0 0%	0 1%	0 9%	8 8%	0 0%	0 1%	0 0%	56 1%
1992	652	8 4%	7 8%	1 5%	5 4%	0 6%	10 0%	2 0%	0 0%	0 6%	1 1%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	2 6%	0 0%	0 2%	0 0%	58 4%
1993	348	11 8%	1 1%	2 3%	7 8%	0 0%	14 9%	0 0%	0 0%	0 6%	0 0%	4 6%	0 0%	0 0%	0 0%	0 6%	0 0%	4 3%	0 0%	0 3%	0 0%	51 7%
1994	391	19 7%	5 1%	2 8%	13 6%	0 0%	10 7%	2 0%	0 0%	2 0%	0 5%	2 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	40 7%
1995	830	16 1%	0 0%	4 7%	7 8%	0 6%	3 7%	0 0%	0 0%	0 8%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	0 0%	64 7%
1996	685	13 6%	0 0%	4 4%	0 7%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	79 6%
1997	921	16 4%	0 0%	0 0%	1 6%	0 7%	1 2%	0 9%	0 0%	0 0%	0 2%	0 1%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	78 5%
1998	1147	9 9%	0 0%	0 3%	6 4%	0 0%	0 0%	0 3%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	82 8%
1999	771	7 8%	0 0%	0 6%	7 8%	1 3%	0 0%	1 4%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	80 7%
2000	520	6 0%	0 2%	2 9%	0 0%	0 0%	0 2%	0 0%	0 0%	1 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	89 0%
2001	539	8 3%	0 0%	3 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	86 1%
2002	712	19 8%	0 0%	1 0%	4 8%	3 5%	1 7%	0 0%	0 0%	2 2%	0 3%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	65 6%
2003	980	15 0%	0 1%	2 9%	3 3%	0 0%	0 0%	0 6%	0 0%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	76 3%
2004	1117	12 3%	0 0%	1 2%	9 2%	2 1%	0 7%	0 9%	0 0%	5 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 5%	0 0%	0 0%	0 0%	67 7%
2005	638	12 9%	0 2%	1 3%	12 1%	6 3%	0 0%	1 3%	0 0%	5 3%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	58 8%
2006	804	10 8%	1 9%	2 4%	6 3%	3 9%	0 0%	1 4%	0 0%	0 7%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	71 4%
2007	339	20 1%	0 3%	4 7%	8 8%	6 8%	0 9%	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	1 8%	0 0%	0 0%	0 0%	54 6%
2008	128	24 2%	0 0%	8 6%	10 2%	18 0%	0 0%	0 0%	0 0%	6 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	32 8%
1979-2008	694	14 0%	1 2%	2 3%	6 4%	2 2%	4 2%	0 6%	0 0%	1 6%	0 3%	1 5%	0 0%	0 2%	0 0%	0 2%	0 2%	2 8%	0 0%	0 1%	0 0%	62 3%
1979-1984	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	653	14 7%	3 0%	1 8%	8 1%	0 2%	11 0%	0 6%	0 1%	0 9%	0 7%	4 3%	0 0%	0 2%	0 0%	0 2%	0 4%	7 4%	0 0%	0 1%	0 0%	46 1%
1996-1998	918	13 3%	0 0%	1 6%	2 9%	0 2%	0 8%	0 4%	0 0%	0 1%	0 1%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 1%	0 0%	80 3%
1999-2008	655	13 7%	0 3%	2 8%	6 2%	4 2%	0 3%	0 6%	0 0%	2 6%	0 0%	0 0%	0 0%	0 2%	0 0%	0 3%	0 0%	0 4%	0 0%	0 0%	0 0%	68 3%

Appendix C.25. Percent distribution of Kitsumkalum River Summer reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	65	50 8%	0 0%	0 0%	18 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	30 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985	184	26 1%	0 0%	1 6%	7 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	13 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	51 6%
1986	213	8 9%	0 0%	0 0%	14 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 3%	65 7%
1987	231	7 4%	0 0%	0 0%	9 1%	2 2%	0 0%	0 0%	0 0%	0 0%	0 0%	7 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 2%	71 4%
1988	161	17 4%	0 6%	1 9%	3 1%	3 7%	0 0%	0 0%	0 0%	0 0%	0 0%	23 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 7%	46 6%
1989	800	10 9%	0 3%	6 8%	5 0%	3 4%	0 0%	0 0%	0 0%	0 0%	0 0%	11 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 4%	59 1%
1990	606	10 7%	0 0%	2 8%	6 8%	1 8%	0 0%	0 0%	0 0%	0 0%	0 3%	7 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 6%	64 9%
1991	294	14 6%	0 0%	3 7%	8 8%	6 8%	0 0%	0 0%	0 0%	0 0%	0 7%	16 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 8%	41 8%
1992	669	13 9%	0 0%	1 9%	7 0%	5 4%	0 4%	0 0%	0 0%	0 0%	0 0%	9 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	60 7%
1993	230	10 4%	0 9%	2 2%	10 0%	4 3%	0 0%	0 0%	0 0%	0 0%	0 0%	18 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	53 5%
1994	126	11 1%	0 0%	0 0%	5 6%	6 3%	0 0%	0 0%	0 0%	0 0%	0 0%	19 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	57 9%
1995	184	12 0%	0 0%	2 7%	7 1%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	28 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 3%	42 4%
1996	505	8 5%	0 2%	6 1%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	17 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 0%	63 8%
1997	624	10 4%	0 0%	7 5%	0 0%	4 6%	0 0%	0 0%	0 0%	0 0%	0 0%	7 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	7 2%	62 7%
1998	490	8 6%	0 0%	3 1%	0 0%	2 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 5%	81 6%
1999	697	13 9%	0 0%	9 2%	0 0%	10 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	64 4%
2000	329	8 2%	0 0%	7 9%	0 0%	6 1%	0 0%	0 0%	0 0%	0 0%	0 0%	6 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 6%	67 5%
2001	507	10 1%	0 0%	8 9%	0 6%	4 9%	0 0%	0 0%	0 0%	0 0%	0 0%	7 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 8%	65 3%
2002	909	13 9%	0 2%	5 7%	1 5%	10 2%	0 0%	0 0%	0 0%	0 6%	0 0%	2 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	63 3%
2003	601	14 0%	0 0%	1 7%	5 2%	5 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 3%	70 2%
2004	901	8 1%	2 6%	5 4%	0 9%	7 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	73 4%
2005	324	14 8%	0 0%	2 5%	2 5%	6 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 2%	67 9%
2006	281	12 8%	1 8%	1 8%	2 8%	5 7%	0 0%	0 0%	0 0%	0 0%	0 0%	5 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 3%	64 8%
2007	502	11 6%	0 4%	2 8%	1 6%	8 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	73 7%
2008	459	6 1%	0 2%	2 2%	2 4%	13 7%	0 0%	0 0%	0 0%	0 0%	0 0%	11 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	12 4%	51 4%
1979-2008	436	13 4%	0 3%	3 5%	4 8%	5 0%	0 0%	0 0%	0 0%	0 0%	0 0%	10 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 3%	59 4%
1979-1984	65	50 8%	0 0%	0 0%	18 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	30 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	336	13 0%	0 2%	2 1%	7 6%	3 3%	0 0%	0 0%	0 0%	0 0%	0 1%	14 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 7%	56 0%
1996-1998	540	9 2%	0 1%	5 6%	0 0%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	8 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 6%	69 4%
1999-2008	551	11 3%	0 5%	4 8%	1 7%	7 9%	0 0%	0 0%	0 0%	0 1%	0 0%	3 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 9%	66 2%

Appendix C.26. Percent distribution of Kitsumkalum River Summer total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				Esc.
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport		
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1984	82	56.1%	0.0%	0.0%	19.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	24.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%
1985	195	29.2%	0.0%	1.5%	7.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		48.7%
1986	216	10.2%	0.0%	0.0%	13.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%		64.8%
1987	264	12.5%	0.0%	2.7%	9.8%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%		62.5%
1988	202	23.3%	1.5%	5.0%	7.4%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	18.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.5%		37.1%
1989	849	13.9%	0.7%	6.9%	5.3%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	10.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%		55.7%
1990	634	11.8%	0.0%	3.3%	7.9%	2.1%	0.0%	0.0%	0.0%	0.0%	0.3%	6.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.8%		62.0%
1991	332	18.7%	0.0%	4.2%	10.8%	6.6%	0.0%	0.0%	0.0%	0.0%	0.9%	15.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.6%		37.0%
1992	694	15.1%	0.0%	2.0%	7.9%	5.6%	0.4%	0.0%	0.0%	0.0%	0.0%	9.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%		58.5%
1993	242	11.6%	1.7%	2.1%	11.6%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%	17.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		50.8%
1994	135	13.3%	0.0%	0.0%	6.7%	8.1%	0.0%	0.0%	0.0%	0.0%	0.0%	17.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		54.1%
1995	218	13.3%	0.0%	2.8%	9.6%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	31.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.1%		35.8%
1996	546	10.3%	0.2%	6.8%	0.2%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	19.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%		59.0%
1997	667	11.8%	0.0%	8.7%	0.0%	5.8%	0.0%	0.0%	0.0%	0.0%	0.0%	7.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.2%		58.6%
1998	509	10.4%	0.0%	3.5%	0.0%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.5%		78.6%
1999	742	15.1%	0.0%	10.1%	0.0%	11.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%		60.5%
2000	359	9.7%	0.0%	10.3%	0.0%	7.6%	0.0%	0.0%	0.0%	0.0%	0.0%	6.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%		61.8%
2001	597	11.6%	0.0%	9.7%	0.7%	5.7%	0.0%	0.0%	0.0%	0.0%	0.0%	14.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%		55.4%
2002	1012	14.[illegible]	0.4%	6.3%	1.7%	12.2%	0.0%	0.0%	0.0%	0.6%	0.0%	5.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%		56.6%
2003	634	15.[illegible]	0.0%	1.9%	5.8%	6.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%		66.6%
2004	971	8.4%	4.2%	5.7%	0.9%	10.2%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%		68.1%
2005	345	17.1%	0.0%	2.9%	2.6%	7.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.1%		63.8%
2006	301	15.0%	2.0%	2.3%	3.0%	7.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.3%		60.5%
2007	533	13.5%	0.8%	3.2%	1.7%	9.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%		69.4%
2008	495	7.1%	0.4%	2.6%	2.6%	15.8%	0.0%	0.0%	0.0%	0.0%	0.0%	11.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.3%		47.7%
1979-2008	471	15.6%	0.5%	4.2%	5.5%	5.8%	0.0%	0.0%	0.0%	0.0%	0.0%	10.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%		56.0%
1979-1984	82	56.1%	0.0%	0.0%	19.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	24.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%
1985-1995	362	15.7%	0.3%	2.8%	9.0%	3.7%	0.0%	0.0%	0.0%	0.0%	0.1%	14.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%		51.6%
1996-1998	574	10.8%	0.1%	6.3%	0.1%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	9.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%		65.4%
1999-2008	589	12.8%	0.8%	5.5%	1.9%	9.5%	0.0%	0.0%	0.0%	0.1%	0.0%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.9%		61.1%

Appendix C.27. Percent distribution of Lower River Hatchery Tule reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	396	0 8%	0 0%	0 0%	0 0%	0 0%	16 7%	1 3%	0 0%	3 3%	0 5%	7 6%	0 0%	18 7%	1 0%	12 1%	3 0%	10 1%	0 0%	5 6%	0 0%	19 4%
1981	2765	0 0%	0 0%	0 0%	0 0%	0 0%	31 0%	0 3%	0 0%	1 8%	0 5%	2 5%	0 0%	21 5%	0 0%	8 1%	0 5%	3 4%	0 0%	1 3%	0 3%	28 6%
1982	3176	0 0%	0 0%	0 0%	0 3%	0 0%	26 1%	0 5%	0 0%	0 9%	1 8%	0 3%	0 0%	18 6%	0 2%	7 6%	1 9%	1 3%	0 0%	14 1%	0 1%	26 5%
1983	1793	0 0%	0 0%	0 0%	0 0%	0 1%	34 6%	0 4%	0 0%	1 4%	2 3%	0 8%	0 0%	11 3%	0 0%	4 4%	1 3%	4 2%	0 0%	5 5%	0 0%	33 6%
1984	1465	0 0%	0 0%	0 0%	0 0%	0 0%	50 1%	0 3%	0 5%	0 8%	3 2%	1 6%	0 0%	5 9%	0 0%	1 2%	0 7%	1 0%	0 0%	10 7%	1 6%	22 5%
1985	995	0 0%	0 0%	0 0%	0 0%	0 0%	28 0%	0 7%	0 0%	1 1%	0 9%	1 6%	0 0%	15 7%	0 3%	3 8%	1 3%	1 3%	0 0%	2 5%	0 6%	42 1%
1986	1341	0 0%	0 0%	0 0%	0 0%	0 1%	9 4%	2 7%	0 0%	2 5%	0 0%	8 1%	0 0%	6 9%	0 0%	2 2%	1 4%	3 4%	0 0%	9 8%	5 9%	47 7%
1987	7478	0 0%	0 0%	0 0%	0 2%	0 0%	26 9%	2 5%	0 0%	0 5%	1 6%	0 2%	0 0%	16 6%	0 5%	4 0%	0 7%	1 5%	0 0%	19 4%	4 0%	21 3%
1988	2511	0 3%	0 0%	0 0%	0 3%	0 0%	29 0%	2 4%	0 0%	1 0%	0 6%	0 0%	0 0%	11 5%	0 5%	0 9%	0 3%	0 5%	0 0%	23 6%	1 8%	27 3%
1989	254	0 0%	0 0%	0 0%	0 0%	0 0%	15 4%	0 0%	0 0%	0 0%	0 0%	2 0%	0 0%	22 4%	0 0%	2 4%	0 0%	2 0%	0 0%	5 9%	0 8%	49 2%
1990	288	0 0%	0 0%	0 0%	0 0%	0 0%	19 8%	0 0%	0 0%	0 0%	0 0%	2 1%	0 0%	16 3%	0 0%	6 9%	0 0%	1 4%	0 0%	0 3%	2 8%	50 3%
1991	441	0 0%	0 0%	0 0%	0 0%	0 0%	10 0%	2 0%	0 0%	0 7%	0 2%	2 5%	0 0%	9 3%	0 0%	4 3%	0 2%	1 1%	0 0%	2 0%	9 5%	58 0%
1992	1150	0 0%	0 0%	0 0%	0 0%	0 0%	16 3%	1 9%	0 0%	0 0%	0 5%	1 0%	0 0%	28 0%	0 0%	5 4%	0 0%	1 9%	0 0%	0 8%	3 7%	40 5%
1993	486	0 0%	0 0%	0 0%	0 0%	0 0%	18 5%	4 5%	0 0%	0 0%	0 6%	0 0%	0 0%	19 8%	0 0%	2 5%	0 0%	4 1%	0 0%	2 1%	4 3%	43 6%
1994	29	0 0%	0 0%	0 0%	0 0%	0 0%	27 6%	0 0%	0 0%	10 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	62 1%
1995	30	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 3%	10 0%	86 7%
1996	62	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 1%	0 0%	0 0%	0 0%	0 0%	0 0%	6 5%	0 0%	85 5%
1997	211	0 0%	0 0%	0 0%	0 0%	0 0%	17 1%	4 7%	0 0%	2 8%	0 0%	0 0%	0 0%	8 5%	0 0%	2 8%	0 0%	0 0%	0 0%	0 9%	8 5%	54 5%
1998	104	0 0%	0 0%	0 0%	0 0%	3 8%	1 0%	9 6%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	1 0%	0 0%	0 0%	0 0%	1 9%	21 2%	60 6%
1999	307	0 0%	0 0%	0 0%	0 0%	0 0%	2 3%	9 1%	0 0%	0 0%	0 0%	0 0%	0 0%	6 8%	0 0%	3 3%	0 0%	0 0%	0 0%	3 6%	6 2%	68 7%
2000	222	0 0%	0 0%	0 0%	0 0%	0 0%	17 6%	12 2%	0 0%	1 8%	0 0%	0 0%	0 0%	2 3%	0 0%	0 0%	0 0%	0 9%	0 0%	2 7%	3 6%	59 0%
2001	1064	0 0%	0 0%	0 0%	0 0%	0 0%	8 2%	2 3%	0 0%	0 3%	0 0%	0 0%	0 0%	19 3%	0 0%	3 6%	0 1%	0 3%	0 0%	1 4%	4 8%	59 8%
2002	1660	0 4%	0 0%	0 0%	0 0%	0 0%	10 7%	3 1%	0 0%	0 0%	0 0%	0 0%	0 0%	20 7%	0 0%	7 8%	0 1%	0 0%	0 0%	8 5%	3 1%	45 7%
2003	1699	0 0%	0 0%	0 0%	0 0%	0 0%	16 2%	5 7%	0 0%	0 4%	0 0%	0 0%	0 0%	15 2%	0 0%	7 0%	0 0%	0 7%	0 0%	7 2%	2 3%	45 3%
2004	1446	0 5%	0 0%	0 0%	0 3%	0 3%	23 0%	8 6%	0 0%	0 5%	0 0%	0 0%	0 0%	8 5%	0 0%	3 7%	0 0%	0 1%	0 0%	16 9%	1 2%	36 4%
2005	552	0 0%	0 0%	0 0%	0 4%	0 0%	31 9%	7 2%	0 0%	0 0%	0 0%	0 0%	0 0%	7 1%	0 0%	2 4%	0 0%	0 0%	0 0%	16 8%	0 2%	34 1%
2006	82	0 0%	0 0%	0 0%	0 0%	0 0%	17 1%	14 6%	0 0%	0 0%	0 0%	0 0%	0 0%	2 4%	0 0%	0 0%	0 0%	0 0%	0 0%	9 8%	1 2%	54 9%
2007	141	0 0%	0 7%	0 0%	0 0%	0 0%	14 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 7%	0 0%	2 1%	0 0%	0 0%	0 0%	5 0%	2 8%	69 5%
2008	345	0 0%	0 0%	0 0%	0 0%	0 0%	11 9%	9 3%	0 0%	0 0%	0 0%	0 0%	0 0%	4 1%	0 0%	7 0%	0 0%	0 0%	0 0%	25 2%	3 5%	39 1%
1979-2008	1120	0 1%	0 0%	0 0%	0 0%	0 1%	18 3%	3 7%	0 0%	1 0%	0 4%	1 0%	0 0%	11 4%	0 1%	3 7%	0 4%	1 4%	0 0%	7 4%	3 6%	47 3%
1979-1984	1919	0 2%	0 0%	0 0%	0 1%	0 0%	31 7%	0 6%	0 1%	1 6%	1 7%	2 6%	0 0%	15 2%	0 2%	6 7%	1 5%	4 0%	0 0%	7 4%	0 4%	26 1%
1985-1995	1364	0 0%	0 0%	0 0%	0 0%	0 0%	18 3%	1 5%	0 0%	1 5%	0 4%	1 6%	0 0%	13 3%	0 1%	2 9%	0 4%	1 6%	0 0%	6 3%	3 9%	48 1%
1996-1998	126	0 0%	0 0%	0 0%	0 0%	1 3%	6 0%	4 8%	0 0%	0 9%	0 0%	0 0%	0 0%	5 9%	0 0%	1 3%	0 0%	0 0%	0 0%	3 1%	9 9%	66 9%
1999-2008	752	0 1%	0 1%	0 0%	0 1%	0 0%	15 3%	7 2%	0 0%	0 3%	0 0%	0 0%	0 0%	9 2%	0 0%	3 7%	0 0%	0 2%	0 0%	9 7%	2 9%	51 3%

Appendix C.28. Percent distribution of Lower River Hatchery Tule total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	709	0.4%	0.0%	0.0%	0.1%	0.0%	33.0%	0.7%	0.0%	2.0%	0.8%	5.1%	0.0%	22.6%	0.7%	8.6%	2.7%	9.2%	0.0%	3.2%	0.0%	10.9%
1981	3307	0.0%	0.0%	0.0%	0.0%	0.0%	33.8%	0.3%	0.0%	1.6%	0.5%	2.3%	0.0%	24.0%	0.0%	7.8%	0.6%	3.6%	0.0%	1.2%	0.3%	23.9%
1982	3679	0.0%	0.0%	0.0%	0.3%	0.0%	29.2%	0.5%	0.0%	0.8%	2.0%	0.3%	0.0%	20.1%	0.2%	7.4%	2.1%	1.4%	0.0%	12.8%	0.1%	22.9%
1983	2036	0.0%	0.0%	0.0%	0.0%	0.1%	36.5%	0.4%	0.0%	1.3%	2.5%	0.8%	0.0%	12.4%	0.0%	4.4%	1.6%	5.3%	0.0%	5.2%	0.0%	29.6%
1984	1631	0.0%	0.0%	0.0%	0.0%	0.0%	51.8%	0.2%	0.5%	0.8%	3.4%	1.5%	0.0%	6.3%	0.0%	1.2%	0.9%	1.3%	0.0%	10.3%	1.5%	20.2%
1985	1104	0.0%	0.0%	0.0%	0.0%	0.0%	30.1%	0.7%	0.0%	1.1%	0.9%	1.5%	0.0%	17.8%	0.3%	3.8%	1.4%	1.5%	0.0%	2.4%	0.5%	38.0%
1986	1880	0.0%	0.0%	0.0%	0.0%	0.2%	8.9%	2.5%	0.0%	1.9%	0.0%	6.9%	0.0%	6.3%	0.0%	1.9%	1.9%	21.5%	0.0%	7.6%	6.4%	34.0%
1987	9048	0.0%	0.0%	0.0%	0.2%	0.0%	33.0%	2.2%	0.0%	0.4%	1.9%	0.2%	0.0%	17.3%	0.5%	3.6%	0.6%	1.4%	0.0%	17.3%	3.5%	17.6%
1988	2694	0.3%	0.0%	0.0%	0.3%	0.0%	31.7%	2.4%	0.0%	1.0%	0.6%	0.0%	0.0%	11.8%	0.5%	0.9%	0.3%	0.5%	0.0%	22.4%	1.9%	25.5%
1989	277	0.0%	0.0%	0.0%	0.0%	0.0%	17.0%	0.0%	0.0%	0.0%	0.0%	1.8%	0.0%	25.3%	0.0%	2.2%	0.0%	2.5%	0.0%	5.4%	0.7%	45.1%
1990	324	0.0%	0.0%	0.0%	0.0%	0.0%	22.8%	0.0%	0.0%	0.0%	0.0%	1.9%	0.0%	18.2%	0.0%	7.1%	0.0%	1.9%	0.0%	0.3%	3.1%	44.8%
1991	504	0.0%	0.0%	0.0%	0.0%	0.0%	11.9%	2.2%	0.0%	1.0%	0.2%	2.4%	0.0%	10.9%	0.0%	4.8%	0.4%	2.6%	0.0%	2.0%	10.9%	50.8%
1992	1335	0.0%	0.0%	0.0%	0.0%	0.0%	19.5%	1.8%	0.0%	0.0%	0.6%	0.8%	0.0%	30.3%	0.0%	5.2%	0.0%	2.0%	0.0%	0.7%	4.1%	34.9%
1993	532	0.0%	0.0%	0.0%	0.0%	0.0%	20.9%	4.3%	0.0%	0.0%	0.8%	0.0%	0.0%	20.9%	0.0%	2.4%	0.0%	4.5%	0.0%	1.9%	4.5%	39.8%
1994	32	0.0%	0.0%	0.0%	0.0%	0.0%	31.3%	0.0%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	56.3%
1995	31	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.2%	12.9%	83.9%
1996	62	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.1%	0.0%	0.0%	0.0%	0.0%	0.0%	6.5%	0.0%	85.5%
1997	234	0.0%	0.0%	0.0%	0.0%	0.0%	20.9%	4.3%	0.0%	3.0%	0.0%	0.0%	0.0%	9.0%	0.0%	3.0%	0.0%	0.0%	0.0%	0.9%	9.8%	49.1%
1998	113	0.0%	0.0%	0.0%	0.0%	5.3%	0.9%	10.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	1.8%	0.0%	0.0%	0.0%	1.8%	23.0%	55.8%
1999	323	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	9.6%	0.0%	0.0%	0.0%	0.0%	0.0%	8.0%	0.0%	3.4%	0.0%	0.0%	0.0%	3.7%	7.7%	65.3%
2000	248	0.0%	0.0%	0.0%	0.0%	0.0%	18.1%	13.7%	0.0%	2.4%	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%	0.0%	4.0%	0.0%	2.4%	4.0%	52.8%
2001	1164	0.0%	0.0%	0.0%	0.0%	0.0%	8.2%	2.6%	0.0%	0.3%	0.0%	0.0%	0.0%	22.1%	0.0%	3.8%	0.1%	1.1%	0.0%	1.4%	5.8%	54.6%
2002	1815	0.5%	0.0%	0.0%	0.0%	0.0%	10.7%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	23.5%	0.0%	8.2%	0.1%	0.0%	0.0%	8.3%	3.5%	41.8%
2003	1822	0.0%	0.0%	0.0%	0.0%	0.0%	15.8%	6.6%	0.0%	0.5%	0.0%	0.0%	0.0%	17.2%	0.0%	7.2%	0.0%	0.9%	0.0%	7.1%	2.5%	42.3%
2004	1505	0.5%	0.0%	0.0%	0.3%	0.3%	22.7%	9.5%	0.0%	0.5%	0.0%	0.0%	0.0%	9.2%	0.0%	3.9%	0.0%	0.1%	0.0%	16.6%	1.3%	35.0%
2005	570	0.0%	0.0%	0.0%	0.4%	0.0%	31.8%	8.1%	0.0%	0.0%	0.0%	0.0%	0.0%	7.5%	0.0%	2.5%	0.0%	0.0%	0.0%	16.7%	0.2%	33.0%
2006	85	0.0%	0.0%	0.0%	0.0%	0.0%	17.6%	16.5%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	9.4%	1.2%	52.9%
2007	148	0.0%	0.7%	0.0%	0.0%	0.0%	15.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.8%	0.0%	2.7%	0.0%	0.0%	0.0%	4.7%	3.4%	66.2%
2008	372	0.0%	0.0%	0.0%	0.0%	0.0%	11.8%	10.2%	0.0%	0.0%	0.0%	0.0%	0.0%	4.8%	0.0%	7.3%	0.0%	0.0%	0.0%	25.3%	4.3%	36.3%
1979-2008	1296	0.1%	0.0%	0.0%	0.1%	0.2%	20.3%	3.9%	0.0%	1.1%	0.5%	0.9%	0.0%	12.6%	0.1%	3.6%	0.4%	2.3%	0.0%	6.9%	4.0%	43.1%
1979-1984	2272	0.1%	0.0%	0.0%	0.1%	0.0%	36.9%	0.4%	0.1%	1.3%	1.8%	2.0%	0.0%	17.1%	0.2%	5.9%	1.6%	4.2%	0.0%	6.5%	0.4%	21.5%
1985-1995	1615	0.0%	0.0%	0.0%	0.0%	0.0%	20.6%	1.5%	0.0%	1.6%	0.5%	1.4%	0.0%	14.4%	0.1%	2.9%	0.4%	3.5%	0.0%	5.8%	4.4%	42.8%
1996-1998	136	0.0%	0.0%	0.0%	0.0%	1.8%	7.3%	5.0%	0.0%	1.0%	0.0%	0.0%	0.0%	6.0%	0.0%	1.6%	0.0%	0.0%	0.0%	3.0%	10.9%	63.5%
1999-2008	805	0.1%	0.1%	0.0%	0.1%	0.0%	15.4%	8.0%	0.0%	0.4%	0.0%	0.0%	0.0%	10.4%	0.0%	3.9%	0.0%	0.6%	0.0%	9.6%	3.4%	48.0%

Appendix C.29. Percent distribution of Lewis River Wild reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	1125	6 4%	0 0%	0 0%	3 3%	2 1%	6 0%	0 0%	0 0%	0 0%	1 4%	0 9%	0 0%	2 1%	0 0%	2 6%	0 1%	0 2%	0 0%	4 1%	13 2%	57 7%
1982	924	6 0%	1 3%	0 2%	3 0%	0 0%	10 7%	0 0%	0 4%	0 0%	1 4%	1 5%	0 0%	4 1%	0 9%	7 5%	0 6%	0 8%	0 0%	4 7%	15 3%	41 7%
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	635	4 9%	0 0%	0 0%	1 6%	0 0%	6 8%	2 5%	0 0%	0 0%	2 2%	0 9%	0 0%	3 3%	0 0%	0 6%	0 0%	0 0%	0 0%	26 6%	11 5%	39 1%
1987	1099	4 1%	0 0%	0 0%	4 7%	0 0%	8 4%	0 9%	0 0%	0 0%	1 3%	0 0%	0 0%	2 7%	0 4%	0 9%	0 0%	0 3%	0 0%	25 3%	5 1%	46 0%
1988	923	4 4%	0 0%	0 0%	2 9%	0 0%	8 9%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	4 6%	0 0%	1 1%	0 0%	1 1%	0 0%	23 1%	14 5%	38 8%
1989	1280	1 8%	0 2%	0 2%	4 5%	0 5%	5 1%	0 5%	0 0%	0 0%	0 2%	1 5%	0 0%	4 9%	0 2%	0 7%	0 0%	0 0%	0 0%	9 2%	6 6%	63 9%
1990	1138	5 4%	0 0%	0 0%	1 7%	0 6%	12 1%	0 8%	0 0%	0 0%	0 4%	0 6%	0 0%	4 0%	0 0%	1 8%	0 0%	1 1%	0 0%	3 3%	2 2%	65 8%
1991	884	6 0%	0 1%	0 0%	3 8%	1 1%	5 9%	0 0%	0 0%	0 0%	0 5%	0 7%	0 0%	2 4%	0 0%	1 1%	0 0%	0 0%	0 0%	15 8%	6 0%	56 6%
1992	552	1 6%	0 0%	0 0%	3 8%	0 7%	6 2%	0 0%	0 0%	0 0%	1 8%	0 0%	0 0%	2 9%	0 0%	0 7%	0 0%	0 9%	0 0%	4 5%	21 7%	55 1%
1993	384	3 6%	0 0%	1 0%	4 9%	0 0%	7 6%	0 0%	0 0%	0 0%	0 0%	1 8%	0 0%	0 8%	0 0%	0 5%	0 0%	0 0%	0 0%	6 8%	8 6%	64 3%
1994	250	6 4%	0 0%	0 0%	3 2%	0 0%	3 2%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%	83 2%
1995	528	6 6%	0 0%	2 3%	3 2%	0 0%	5 3%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	24 6%	57 6%
1996	324	7 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	4 6%	84 0%
1997	222	12 6%	0 0%	0 0%	3 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 2%	81 1%
1998	101	7 9%	0 0%	0 0%	5 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	2 0%	83 2%
1999	53	11 3%	0 0%	0 0%	9 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	79 2%
2000	67	3 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	16 4%	3 0%	77 6%
2001	223	4 9%	0 0%	1 3%	0 0%	0 0%	8 5%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	5 8%	0 0%	2 2%	0 0%	0 0%	0 0%	2 2%	3 1%	69 1%
2002	361	11 4%	0 0%	1 7%	0 0%	0 0%	6 1%	5 3%	0 0%	0 0%	0 0%	0 0%	0 0%	5 3%	0 0%	2 2%	0 0%	0 0%	0 0%	4 7%	2 5%	60 9%
2003	459	9 4%	0 0%	0 0%	1 5%	1 1%	5 0%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	9 4%	0 0%	1 1%	0 0%	0 0%	0 0%	6 8%	5 9%	58 8%
2004	2145	6 0%	0 0%	0 5%	3 0%	0 7%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 1%	0 0%	0 0%	0 0%	2 5%	1 9%	82 6%
2005	373	3 5%	0 0%	0 0%	12 1%	6 2%	4 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%	0 8%	0 0%	0 0%	0 0%	12 1%	8 8%	50 7%
2006	574	13 6%	0 0%	0 5%	6 4%	1 6%	8 5%	0 9%	0 0%	1 7%	0 0%	0 0%	0 0%	1 6%	0 0%	0 5%	0 0%	0 0%	0 0%	5 7%	19 0%	39 9%
2007	188	33 0%	0 0%	1 1%	6 4%	0 0%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 9%	0 0%	3 2%	0 0%	0 0%	0 0%	3 2%	0 0%	44 1%
2008	125	7 2%	0 0%	0 0%	0 0%	3 2%	13 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 6%	0 0%	0 8%	0 0%	3 2%	0 0%	0 0%	5 6%	60 8%
1979-2008	597	7 6%	0 1%	0 4%	3 5%	0 7%	5 4%	0 6%	0 0%	0 1%	0 4%	0 4%	0 0%	2 9%	0 1%	1 1%	0 0%	0 3%	0 0%	7 3%	7 6%	61 7%
1979-1984	1024	6 2%	0 6%	0 1%	3 2%	1 1%	8 3%	0 0%	0 2%	0 0%	1 4%	1 2%	0 0%	3 1%	0 4%	5 0%	0 4%	0 5%	0 0%	4 4%	14 2%	49 7%
1985-1995	767	4 5%	0 0%	0 4%	3 4%	0 3%	6 9%	0 5%	0 0%	0 0%	0 6%	0 8%	0 0%	2 6%	0 1%	0 8%	0 0%	0 3%	0 0%	11 6%	10 1%	57 0%
1996-1998	216	9 4%	0 0%	0 0%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	3 3%	82 7%
1999-2008	457	10 3%	0 0%	0 5%	3 9%	1 3%	5 0%	1 0%	0 0%	0 2%	0 0%	0 0%	0 0%	3 7%	0 0%	1 1%	0 0%	0 3%	0 0%	5 4%	5 0%	62 4%

Appendix C.30. Percent distribution of Lewis River Wild total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	1221	7 2%	0 0%	0 0%	3 8%	2 1%	7 5%	0 0%	0 0%	0 0%	1 6%	1 0%	0 0%	2 5%	0 0%	2 9%	0 2%	0 2%	0 0%	4 0%	13 8%	53 2%
1982	988	7 2%	1 2%	0 2%	3 5%	0 0%	11 6%	0 0%	0 4%	0 0%	1 6%	1 4%	0 0%	4 3%	0 8%	7 5%	0 6%	0 8%	0 0%	4 6%	15 3%	39 0%
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	686	6 1%	0 0%	0 0%	2 2%	0 0%	8 0%	2 6%	0 0%	0 0%	2 2%	1 0%	0 0%	3 8%	0 0%	0 6%	0 0%	0 0%	0 0%	25 7%	11 7%	36 2%
1987	1182	5 6%	0 0%	0 0%	5 3%	0 0%	9 6%	0 9%	0 0%	0 0%	1 4%	0 0%	0 0%	2 9%	0 4%	0 9%	0 0%	0 3%	0 0%	24 5%	5 3%	42 7%
1988	1010	5 1%	0 0%	0 0%	3 5%	0 0%	10 7%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	5 0%	0 0%	1 1%	0 0%	1 4%	0 0%	22 0%	15 2%	35 4%
1989	1353	2 4%	0 7%	0 3%	5 1%	0 4%	5 8%	0 5%	0 0%	0 0%	0 2%	1 6%	0 0%	5 4%	0 3%	0 7%	0 0%	0 0%	0 0%	9 0%	7 1%	60 5%
1990	1214	7 5%	0 0%	0 0%	1 9%	0 6%	13 4%	0 8%	0 0%	0 0%	0 5%	0 7%	0 0%	4 2%	0 0%	1 9%	0 0%	1 3%	0 0%	3 2%	2 3%	61 7%
1991	921	7 1%	0 2%	0 0%	4 1%	1 2%	6 4%	0 0%	0 0%	0 0%	0 4%	0 7%	0 0%	2 5%	0 0%	1 1%	0 0%	0 0%	0 0%	15 4%	6 6%	54 3%
1992	582	1 7%	0 0%	0 0%	4 3%	0 7%	6 7%	0 0%	0 0%	0 0%	1 9%	0 0%	0 0%	3 1%	0 0%	0 7%	0 0%	1 0%	0 0%	4 5%	23 2%	52 2%
1993	405	4 4%	0 0%	1 2%	5 7%	0 0%	8 4%	0 0%	0 0%	0 0%	0 0%	1 7%	0 0%	1 5%	0 0%	0 5%	0 0%	0 0%	0 0%	6 7%	8 9%	61 0%
1994	265	9 1%	0 0%	0 0%	4 9%	0 0%	3 8%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	78 5%
1995	564	7 6%	0 0%	2 3%	3 9%	0 0%	6 4%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	25 4%	53 9%
1996	332	9 0%	0 0%	0 0%	0 3%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	4 8%	81 9%
1997	227	14 1%	0 0%	0 0%	3 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 5%	79 3%
1998	101	7 9%	0 0%	0 0%	5 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	2 0%	83 2%
1999	62	17 7%	0 0%	1 6%	8 1%	0 0%	1 6%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	67 7%
2000	73	6 8%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	15 1%	2 7%	71 2%
2001	237	5 9%	0 0%	1 7%	0 0%	0 0%	8 9%	3 8%	0 0%	0 0%	0 0%	0 0%	0 0%	6 3%	0 0%	3 0%	0 0%	0 0%	0 0%	2 1%	3 4%	65 0%
2002	392	14 5%	0 0%	1 8%	0 0%	0 0%	5 9%	5 6%	0 0%	0 0%	0 0%	0 0%	0 0%	6 6%	0 0%	2 3%	0 0%	0 0%	0 0%	4 6%	2 6%	56 1%
2003	478	10 5%	0 0%	0 0%	1 7%	1 3%	5 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	10 3%	0 0%	1 0%	0 0%	0 0%	0 0%	6 5%	6 1%	56 5%
2004	2181	6 6%	0 0%	0 6%	3 3%	0 9%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 1%	0 0%	0 0%	0 0%	2 5%	2 0%	81 2%
2005	394	4 1%	0 0%	0 0%	12 9%	7 4%	4 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 8%	0 0%	0 8%	0 0%	0 0%	0 0%	11 7%	9 1%	48 0%
2006	599	14 5%	0 0%	0 5%	6 5%	1 8%	8 3%	1 0%	0 0%	1 8%	0 0%	0 0%	0 0%	1 5%	0 0%	0 5%	0 0%	0 0%	0 0%	5 5%	19 7%	38 2%
2007	208	38 0%	0 0%	1 0%	6 3%	0 0%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	7 2%	0 0%	2 9%	0 0%	0 0%	0 0%	2 9%	0 0%	39 9%
2008	131	8 4%	0 0%	0 0%	0 0%	3 1%	13 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 1%	0 0%	0 8%	0 0%	3 8%	0 0%	0 0%	6 1%	58 0%
1979-2008	632	9 2%	0 1%	0 5%	3 8%	0 8%	6 0%	0 7%	0 0%	0 1%	0 4%	0 4%	0 0%	3 3%	0 1%	1 2%	0 0%	0 4%	0 0%	7 0%	7 9%	58 2%
1979-1984	1104	7 2%	0 6%	0 1%	3 7%	1 1%	9 6%	0 0%	0 2%	0 0%	1 6%	1 2%	0 0%	3 4%	0 4%	5 2%	0 4%	0 5%	0 0%	4 3%	14 5%	46 1%
1985-1995	818	5 7%	0 1%	0 4%	4 1%	0 3%	7 9%	0 5%	0 0%	0 0%	0 7%	0 8%	0 0%	2 9%	0 1%	0 8%	0 0%	0 4%	0 0%	11 2%	10 6%	53 6%
1996-1998	220	10 4%	0 0%	0 0%	2 8%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	3 4%	81 5%
1999-2008	476	12 7%	0 0%	0 8%	3 9%	1 4%	5 2%	1 3%	0 0%	0 2%	0 0%	0 0%	0 0%	4 5%	0 0%	1 1%	0 0%	0 4%	0 0%	5 1%	5 2%	58 2%

Appendix C.31. Percent distribution of Lyons Ferry reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	797	2 8%	0 0%	0 0%	3 3%	0 0%	18 7%	0 0%	0 0%	0 0%	0 6%	1 0%	0 0%	10 5%	0 0%	0 3%	0 0%	0 0%	0 0%	29 7%	3 6%	29 5%
1989	683	2 8%	0 0%	0 0%	6 3%	0 0%	16 0%	0 9%	0 0%	0 0%	0 0%	1 6%	0 0%	12 3%	0 0%	3 4%	0 0%	0 0%	0 0%	27 2%	3 1%	26 5%
1990	622	5 3%	0 0%	0 0%	3 5%	0 0%	16 1%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	9 6%	0 0%	3 4%	0 0%	1 4%	0 0%	26 4%	1 0%	32 8%
1991	225	2 7%	0 0%	1 8%	4 9%	0 0%	8 9%	0 0%	0 0%	0 0%	0 0%	1 3%	0 0%	4 0%	0 0%	1 3%	0 0%	0 0%	0 0%	12 9%	1 3%	60 9%
1992	168	1 2%	1 2%	0 0%	3 6%	0 0%	10 1%	3 0%	0 0%	0 0%	0 0%	2 4%	0 0%	6 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 3%	1 8%	62 5%
1993	252	3 6%	0 0%	0 0%	4 4%	0 0%	10 3%	0 0%	0 0%	0 0%	0 8%	2 0%	0 0%	7 9%	0 0%	1 6%	0 0%	0 0%	0 0%	13 9%	0 0%	55 6%
1994	628	5 6%	0 5%	1 3%	5 6%	0 0%	6 5%	0 0%	0 0%	0 6%	0 6%	2 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	14 6%	0 5%	61 6%
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1997	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1998	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1999	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2000	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2001	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	398	6 8%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 0%	0 0%	1 3%	0 0%	0 0%	0 0%	11 3%	3 5%	71 1%
2004	787	2 4%	0 0%	0 0%	1 4%	1 4%	1 7%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	5 3%	0 0%	1 8%	0 0%	0 0%	0 0%	4 6%	2 5%	77 8%
2005	436	3 4%	0 2%	0 0%	3 2%	1 4%	3 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 7%	0 0%	2 5%	0 0%	1 6%	0 0%	13 1%	0 9%	66 1%
2006	349	4 3%	0 0%	0 0%	0 6%	2 9%	0 9%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	6 3%	0 0%	1 4%	0 0%	0 0%	0 0%	7 7%	1 1%	73 4%
2007	2601	0 1%	0 0%	0 0%	0 2%	0 2%	1 1%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 1%	0 0%	0 5%	0 0%	0 1%	0 0%	2 3%	2 0%	93 3%
2008	5182	0 3%	0 0%	0 0%	0 2%	0 3%	4 7%	1 9%	0 0%	0 1%	0 0%	0 0%	0 0%	3 0%	0 0%	1 8%	0 0%	0 1%	0 0%	6 7%	1 7%	79 2%
1979-2008	1010	3 2%	0 1%	0 2%	2 8%	0 5%	7 7%	0 6%	0 0%	0 1%	0 2%	0 9%	0 0%	5 7%	0 0%	1 5%	0 0%	0 2%	0 0%	13 8%	1 8%	60 8%
1979-1984	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	482	3 4%	0 2%	0 4%	4 5%	0 0%	12 4%	0 6%	0 0%	0 1%	0 3%	1 6%	0 0%	7 2%	0 0%	1 4%	0 0%	0 2%	0 0%	19 0%	1 6%	47 1%
1996-1998	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1999-2008	1626	2 9%	0 0%	0 0%	0 9%	1 0%	2 2%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	3 9%	0 0%	1 6%	0 0%	0 3%	0 0%	7 6%	2 0%	76 8%

Appendix C.32. Percent distribution of Lyons Ferry total fishing mortalities among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	874	3 1%	0 0%	0 1%	4 0%	0 0%	21 2%	0 0%	0 0%	0 0%	0 6%	0 9%	0 0%	11 4%	0 0%	0 5%	0 0%	0 0%	0 0%	27 8%	3 5%	26 9%
1989	757	3 8%	0 0%	0 0%	7 0%	0 0%	18 0%	0 9%	0 0%	0 0%	0 0%	1 5%	0 0%	12 9%	0 0%	3 3%	0 0%	0 0%	0 0%	25 5%	3 2%	23 9%
1990	651	5 5%	0 0%	0 0%	3 7%	0 0%	17 1%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	10 0%	0 0%	3 5%	0 0%	1 7%	0 0%	25 7%	1 1%	31 3%
1991	239	3 3%	0 0%	2 5%	5 4%	0 0%	10 0%	0 0%	0 0%	0 0%	0 0%	1 3%	0 0%	4 6%	0 0%	1 7%	0 0%	0 0%	0 0%	12 6%	1 3%	57 3%
1992	197	1 5%	8 1%	0 0%	4 1%	0 0%	11 7%	3 0%	0 0%	0 0%	0 0%	2 5%	0 0%	6 1%	0 0%	0 0%	0 0%	0 0%	0 0%	7 6%	2 0%	53 3%
1993	277	5 4%	0 7%	0 4%	5 8%	0 0%	11 6%	0 0%	0 0%	0 0%	1 1%	1 8%	0 0%	7 9%	0 0%	1 4%	0 0%	0 0%	0 0%	13 4%	0 0%	50 5%
1994	658	6 4%	1 2%	1 2%	5 5%	0 0%	6 8%	0 0%	0 0%	0 6%	0 6%	3 2%	0 0%	0 5%	0 0%	0 0%	0 0%	0 2%	0 0%	14 4%	0 6%	58 8%
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1997	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1998	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1999	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2000	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2001	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	423	7 8%	0 0%	0 0%	0 5%	0 2%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 1%	0 0%	1 4%	0 0%	0 2%	0 0%	11 3%	4 5%	66 9%
2004	812	2 7%	0 0%	0 0%	1 6%	1 8%	1 6%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	5 7%	0 0%	2 0%	0 0%	0 2%	0 0%	4 9%	2 8%	75 4%
2005	457	3 9%	0 2%	0 0%	3 5%	1 8%	3 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 2%	0 0%	2 6%	0 0%	2 6%	0 0%	13 1%	1 1%	63 0%
2006	364	5 2%	0 0%	0 0%	0 5%	3 6%	0 8%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	7 1%	0 0%	1 6%	0 0%	0 0%	0 0%	7 7%	1 4%	70 3%
2007	2726	0 1%	0 0%	0 0%	0 3%	0 5%	1 6%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 1%	0 0%	0 8%	0 0%	1 9%	0 0%	2 6%	2 9%	89 0%
2008	5322	0 5%	0 0%	0 0%	0 2%	0 4%	4 8%	2 1%	0 0%	0 2%	0 0%	0 0%	0 0%	3 6%	0 0%	1 9%	0 0%	0 1%	0 0%	7 0%	2 2%	77 1%
1979-2008	1058	3 8%	0 8%	0 3%	3 2%	0 6%	8 5%	0 7%	0 0%	0 1%	0 2%	0 9%	0 0%	6 2%	0 0%	1 6%	0 0%	0 5%	0 0%	13 3%	2 0%	57 2
1979-1984	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	522	4 2%	1 4%	0 6%	5 1%	0 0%	13 8%	0 6%	0 0%	0 1%	0 3%	1 7%	0 0%	7 6%	0 0%	1 5%	0 0%	0 3%	0 0%	18 1%	1 7%	43 2%
1996-1998	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1999-2008	1684	3 4%	0 0%	0 0%	1 1%	1 4%	2 3%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	4 5%	0 0%	1 7%	0 0%	0 9%	0 0%	7 8%	2 5%	73 6%

Appendix C.33. Percent distribution of Nanaimo River Fall reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														
		SEAK			NBC		WCVI		Geo St		Canada			WAVOR coast			Puget Sound		Terminal			Esc.
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	515	4.1%	0.0%	0.0%	1.9%	2.7%	1.7%	0.8%	1.0%	36.3%	12.8%	20.0%	0.0%	0.0%	0.0%	0.0%	0.4%	1.0%	0.0%	0.0%	5.6%	11.7%
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	741	0.3%	0.3%	0.0%	0.8%	2.2%	0.5%	0.9%	6.1%	34.0%	0.8%	11.5%	0.0%	0.8%	0.1%	0.0%	2.6%	0.7%	0.0%	0.0%	7.8%	30.4%
1992	1600	0.1%	0.0%	0.0%	0.8%	3.2%	5.4%	0.3%	7.3%	30.4%	1.3%	7.2%	0.0%	0.4%	0.0%	0.1%	0.8%	0.6%	0.0%	0.0%	1.2%	40.8%
1993	1331	0.1%	0.2%	0.0%	1.5%	1.9%	2.5%	0.5%	4.8%	48.9%	1.1%	5.2%	0.0%	0.6%	0.0%	0.0%	0.2%	1.1%	0.0%	0.0%	2.9%	28.6%
1994	397	0.5%	0.0%	0.0%	0.8%	2.3%	4.0%	1.3%	0.8%	24.7%	0.0%	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.8%	55.4%
1995	1199	0.0%	0.0%	0.0%	0.0%	1.0%	1.2%	0.9%	0.0%	15.4%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.3%	4.1%	74.1%
1996	723	0.0%	0.7%	0.0%	0.0%	1.0%	0.0%	0.6%	0.0%	54.8%	0.0%	2.4%	0.0%	0.3%	0.0%	0.0%	0.6%	2.6%	0.0%	4.6%	5.1%	27.5%
1997	223	6.3%	0.0%	0.0%	3.6%	0.0%	1.3%	0.4%	0.0%	31.4%	2.2%	1.3%	0.0%	0.0%	1.3%	0.0%	4.0%	3.1%	0.0%	0.0%	3.1%	41.7%
1998	189	1.1%	3.7%	0.0%	5.3%	3.2%	0.5%	0.0%	0.0%	18.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	14.3%	51.9%
1999	251	0.0%	0.0%	0.0%	0.0%	2.4%	0.0%	2.4%	0.0%	23.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.2%	2.0%	0.0%	1.2%	2.8%	62.9%
2000	162	1.2%	0.0%	0.0%	0.0%	0.0%	3.1%	6.2%	0.0%	23.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	17.9%	42.6%
2001	280	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	7.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.1%	0.0%	0.0%	3.4%	0.0%	83.8%
2002	767	0.3%	0.1%	0.0%	0.0%	0.9%	1.2%	0.0%	0.0%	33.2%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	2.3%	3.0%	0.0%	4.8%	0.3%	53.7%
2003	754	0.5%	0.3%	0.0%	0.0%	5.6%	3.8%	0.7%	0.0%	15.8%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	1.6%	1.6%	0.0%	1.1%	0.3%	68.2%
2004	805	1.2%	0.0%	0.0%	0.6%	6.3%	5.2%	2.0%	0.0%	8.6%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	1.5%	2.1%	0.0%	6.1%	1.2%	64.2%
2005	494	0.6%	0.0%	0.6%	1.6%	9.1%	6.5%	1.6%	0.0%	6.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	0.8%	0.0%	20.0%	0.0%	50.2%
2006	1216	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.8%	0.0%	4.8%	0.0%	92.5%
2007	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979-2008	686	1.0%	0.3%	0.0%	1.0%	2.5%	2.3%	1.1%	1.2%	24.3%	1.1%	3.5%	0.0%	0.2%	0.1%	0.0%	1.4%	1.3%	0.0%	3.1%	4.0%	51.8%
1979-1984	515	4.1%	0.0%	0.0%	1.9%	2.7%	1.7%	0.8%	1.0%	36.3%	12.8%	20.0%	0.0%	0.0%	0.0%	0.0%	0.4%	1.0%	0.0%	0.0%	5.6%	11.7%
1985-1995	1054	0.2%	0.1%	0.0%	0.8%	2.1%	2.7%	0.8%	3.8%	30.7%	0.6%	6.8%	0.0%	0.4%	0.0%	0.0%	0.8%	0.9%	0.0%	0.1%	3.3%	45.9%
1996-1998	378	2.4%	1.5%	0.0%	3.0%	1.4%	0.6%	0.3%	0.0%	34.7%	0.7%	1.6%	0.0%	0.1%	0.4%	0.0%	1.5%	1.9%	0.0%	1.9%	7.5%	40.4%
1999-2008	592	0.5%	0.0%	0.1%	0.3%	3.0%	2.6%	1.6%	0.0%	14.9%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	1.9%	1.3%	0.0%	5.9%	2.8%	64.8%

Appendix C.34. Percent distribution of Nanaimo River Fall total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	539	4.3%	0.0%	0.0%	1.9%	2.8%	1.7%	0.7%	1.1%	37.3%	12.8%	19.1%	0.0%	0.0%	0.0%	0.0%	0.4%	1.1%	0.0%	0.0%	5.8%	11.1%
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	978	0.2%	0.4%	0.0%	0.9%	2.6%	2.1%	0.8%	8.4%	37.7%	1.2%	9.9%	0.0%	0.8%	0.2%	0.0%	3.3%	1.0%	0.0%	0.0%	7.4%	23.0%
1992	1942	0.2%	0.0%	0.0%	1.0%	3.4%	6.1%	0.3%	9.8%	33.7%	1.5%	6.6%	0.0%	0.5%	0.0%	0.1%	0.9%	0.9%	0.0%	0.0%	1.3%	33.6%
1993	1597	0.1%	0.3%	0.0%	1.8%	1.8%	2.8%	0.5%	6.3%	52.1%	1.4%	4.5%	0.0%	0.6%	0.0%	0.0%	0.2%	1.0%	0.0%	0.0%	2.9%	23.9%
1994	448	0.7%	0.0%	0.0%	0.9%	2.7%	4.5%	1.3%	0.9%	28.6%	0.0%	8.5%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.9%	49.1%
1995	1342	0.0%	0.0%	0.0%	0.0%	1.4%	1.8%	1.0%	0.0%	18.6%	0.0%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	0.3%	5.1%	66.2%
1996	883	0.0%	1.5%	0.0%	0.0%	0.8%	0.3%	0.5%	0.0%	58.4%	0.0%	2.5%	0.0%	0.2%	0.0%	0.0%	0.6%	3.3%	0.0%	4.0%	5.4%	22.5%
1997	264	6.8%	0.0%	0.0%	4.2%	0.0%	1.5%	0.4%	0.0%	33.3%	2.3%	2.3%	0.0%	0.0%	1.5%	0.0%	4.9%	4.2%	0.0%	0.0%	3.4%	35.2%
1998	226	1.3%	5.8%	0.0%	6.2%	4.4%	0.4%	0.0%	0.0%	20.8%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	15.5%	43.4%
1999	275	0.0%	0.0%	0.0%	0.0%	2.5%	0.0%	2.2%	0.0%	26.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%	3.3%	0.0%	1.1%	3.3%	57.5%
2000	175	1.1%	0.0%	0.0%	0.0%	0.0%	2.9%	6.3%	0.0%	25.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	20.0%	39.4%
2001	401	0.2%	0.0%	0.0%	0.0%	0.7%	1.2%	0.0%	0.0%	17.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.7%	10.7%	0.0%	3.0%	0.0%	60.6%
2002	892	0.4%	0.1%	0.0%	0.0%	1.9%	1.3%	0.0%	0.0%	35.4%	0.0%	2.7%	0.0%	0.1%	0.2%	0.0%	2.7%	4.0%	0.0%	4.5%	0.3%	46.2%
2003	834	0.6%	0.4%	0.1%	0.2%	7.3%	4.0%	0.8%	0.0%	17.4%	0.0%	0.0%	0.0%	0.1%	0.6%	0.0%	2.0%	3.0%	0.0%	1.4%	0.4%	61.6%
2004	865	1.4%	0.0%	0.0%	0.7%	8.4%	5.1%	2.2%	0.0%	9.8%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	1.5%	2.8%	0.0%	6.0%	1.4%	59.8%
2005	517	0.6%	0.0%	0.6%	1.5%	10.8%	6.2%	1.7%	0.0%	7.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	1.0%	0.0%	19.9%	0.0%	48.0%
2006	1311	0.2%	0.0%	0.0%	0.1%	0.6%	0.5%	0.5%	0.0%	4.8%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.6%	1.7%	0.0%	4.9%	0.2%	85.8%
2007	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979-2008	793	1.1%	0.5%	0.0%	1.1%	3.1%	2.5%	1.1%	1.6%	27.3%	1.1%	3.6%	0.0%	0.2%	0.1%	0.0%	1.7%	2.5%	0.0%	3.0%	4.3%	45.1%
1979-1984	539	4.3%	0.0%	0.0%	1.9%	2.8%	1.7%	0.7%	1.1%	37.3%	12.8%	19.1%	0.0%	0.0%	0.0%	0.0%	0.4%	1.1%	0.0%	0.0%	5.8%	11.1%
1985-1995	1261	0.2%	0.1%	0.0%	0.9%	2.4%	3.5%	0.8%	5.1%	34.2%	0.8%	6.6%	0.0%	0.4%	0.0%	0.0%	0.9%	1.4%	0.0%	0.1%	3.5%	39.2%
1996-1998	458	2.7%	2.4%	0.0%	3.5%	1.7%	0.8%	0.3%	0.0%	37.5%	0.8%	2.0%	0.0%	0.1%	0.5%	0.0%	1.8%	2.5%	0.0%	1.6%	8.1%	33.7%
1999-2008	659	0.6%	0.1%	0.1%	0.3%	4.0%	2.6%	1.7%	0.0%	18.0%	0.0%	0.3%	0.0%	0.2%	0.1%	0.0%	2.3%	3.3%	0.0%	5.7%	3.2%	57.4%

Appendix C.35. Percent distribution of Nicola River Spring reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	2149	0.0%	0.0%	0.0%	0.2%	0.1%	3.1%	0.7%	0.0%	3.6%	0.0%	0.7%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.8%	52.4%
1995	2622	0.0%	0.0%	0.0%	0.1%	0.6%	1.1%	0.3%	0.0%	2.4%	0.0%	8.4%	0.0%	0.2%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	3.9%	82.6%
1996	355	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	16.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	80.8%
1997	234	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	0.0%	14.5%	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	0.0%	0.0%	5.6%	69.7%
1998	973	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	1.0%	0.0%	19.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.9%	71.5%
1999	3011	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	25.3%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	71.9%
2000	2200	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	3.1%	0.0%	29.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	62.5%
2001	2150	0.0%	0.0%	0.0%	0.0%	0.4%	0.1%	0.0%	0.0%	3.5%	0.0%	7.3%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.3%	83.7%
2002	2110	0.0%	0.0%	0.0%	1.2%	0.3%	0.8%	0.0%	0.0%	1.1%	0.0%	3.8%	0.0%	0.7%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	2.6%	89.4%
2003	2207	0.1%	0.0%	0.0%	1.8%	0.0%	0.7%	0.4%	0.0%	1.9%	0.0%	20.8%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.2%	68.8%
2004	436	0.0%	0.0%	0.0%	1.8%	0.0%	1.8%	0.0%	0.0%	3.4%	0.0%	23.9%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	68.1%
2005	458	0.0%	0.0%	0.0%	0.9%	0.0%	3.3%	0.0%	0.0%	5.2%	0.0%	25.3%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.4%	52.4%
2006	448	0.0%	0.0%	0.0%	1.3%	0.0%	1.6%	0.0%	0.0%	2.5%	0.0%	18.5%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.7%	67.0%
2007	133	0.0%	0.0%	0.0%	0.0%	0.0%	6.8%	0.0%	0.0%	0.0%	0.0%	21.8%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	23.3%	46.6%
2008	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979-2008	1392	0.0%	0.0%	0.0%	0.5%	0.3%	1.4%	0.1%	0.0%	2.5%	0.0%	16.8%	0.0%	0.4%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	8.4%	69.1%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	2386	0.0%	0.0%	0.0%	0.2%	0.4%	2.1%	0.5%	0.0%	3.0%	0.0%	4.5%	0.0%	0.3%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	21.3%	67.5%
1996-1998	521	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	2.7%	0.0%	16.8%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	4.3%	74.0%
1999-2008	1461	0.0%	0.0%	0.0%	0.8%	0.2%	1.7%	0.0%	0.0%	2.4%	0.0%	19.6%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.9%	67.8%

Appendix C.36. Percent distribution of Nicola River Spring total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	2229	0.0%	0.0%	0.0%	0.2%	0.1%	3.2%	0.8%	0.0%	4.0%	0.0%	0.7%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	50.5%
1995	2697	0.0%	0.0%	0.0%	0.1%	0.7%	1.3%	0.4%	0.0%	2.6%	0.0%	9.8%	0.0%	0.1%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	4.0%	80.3%
1996	366	0.0%	0.0%	0.0%	0.8%	0.3%	0.5%	0.0%	0.0%	2.2%	0.0%	17.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	78.4%
1997	298	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.4%	0.0%	25.8%	0.0%	0.0%	0.0%	0.0%	0.0%	9.4%	0.0%	0.0%	4.7%	54.7%
1998	1028	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	1.2%	0.0%	22.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.0%	67.7%
1999	3021	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	25.3%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	71.7%
2000	2311	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	3.4%	0.0%	31.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.1%	59.5%
2001	2174	0.0%	0.0%	0.0%	0.0%	0.5%	0.1%	0.0%	0.0%	4.1%	0.0%	7.2%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%	82.8%
2002	2128	0.0%	0.0%	0.0%	1.4%	0.3%	0.8%	0.0%	0.0%	1.3%	0.0%	3.9%	0.0%	0.8%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	2.7%	88.6%
2003	2228	0.1%	0.0%	0.0%	1.9%	0.0%	0.8%	0.5%	0.0%	2.1%	0.0%	20.7%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.5%	68.1%
2004	444	0.0%	0.0%	0.0%	2.3%	0.0%	2.0%	0.0%	0.0%	4.1%	0.0%	23.6%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.9%
2005	467	0.0%	0.0%	0.0%	1.1%	0.0%	3.2%	0.0%	0.0%	6.0%	0.0%	24.8%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	13.1%	51.4%
2006	455	0.0%	0.0%	0.0%	1.5%	0.0%	1.8%	0.0%	0.0%	2.9%	0.0%	18.2%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.2%	65.9%
2007	137	0.0%	0.0%	0.0%	0.0%	0.0%	6.6%	0.0%	0.0%	0.7%	0.0%	21.9%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	24.1%	45.3%
2008	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979-2008	1427	0.0%	0.0%	0.0%	0.7%	0.4%	1.5%	0.1%	0.0%	2.9%	0.0%	18.1%	0.0%	0.5%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	8.7%	66.6%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	2463	0.0%	0.0%	0.0%	0.2%	0.4%	2.3%	0.6%	0.0%	3.3%	0.0%	5.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	22.0%	65.4%
1996-1998	564	0.0%	0.0%	0.0%	0.3%	0.6%	0.2%	0.0%	0.0%	2.9%	0.0%	21.9%	0.0%	0.0%	0.0%	0.0%	0.0%	3.1%	0.0%	0.0%	4.1%	66.9%
1999-2008	1485	0.0%	0.0%	0.0%	0.9%	0.3%	1.7%	0.1%	0.0%	2.8%	0.0%	19.7%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.2%	66.7%

Appendix C.37. Percent distribution of Nisqually Fall Fingerling reported catch among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	197	0 0%	0 0%	0 0%	2 5%	0 0%	14 7%	0 0%	2 5%	10 2%	0 0%	6 1%	0 0%	4 6%	0 0%	0 0%	10 2%	46 7%	0 0%	1 0%	0 0%	1 5%
1984	205	0 0%	0 0%	0 0%	0 0%	0 0%	31 2%	0 0%	0 0%	1 5%	0 0%	2 4%	0 0%	1 5%	0 0%	0 0%	15 6%	21 0%	0 0%	21 0%	0 0%	5 9%
1985	66	0 0%	0 0%	0 0%	0 0%	0 0%	30 3%	3 0%	0 0%	0 0%	0 0%	6 1%	0 0%	7 6%	0 0%	0 0%	21 2%	16 7%	0 0%	10 6%	0 0%	4 5%
1986	114	0 0%	0 0%	0 0%	0 0%	0 0%	14 9%	0 0%	0 0%	13 2%	0 0%	1 8%	0 0%	0 0%	0 0%	0 0%	12 3%	14 9%	0 0%	23 7%	0 0%	19 3%
1987	150	0 0%	0 0%	0 0%	0 0%	0 0%	10 7%	0 0%	1 3%	12 0%	2 0%	2 0%	0 0%	5 3%	0 0%	0 0%	2 0%	16 0%	0 0%	33 3%	2 7%	12 7%
1988	277	0 0%	0 0%	0 0%	0 7%	2 2%	5 4%	0 0%	4 0%	13 7%	2 2%	5 4%	0 0%	8 7%	0 0%	0 0%	7 2%	10 5%	0 0%	10 1%	0 0%	30 0%
1989	1035	0 0%	0 0%	0 0%	0 3%	0 0%	4 4%	6 3%	0 0%	2 5%	0 0%	4 3%	0 0%	13 3%	2 1%	0 4%	12 4%	17 5%	0 0%	28 1%	0 4%	8 0%
1990	1290	0 0%	0 0%	0 0%	0 0%	0 0%	22 6%	5 8%	0 0%	3 1%	0 2%	0 2%	0 0%	10 2%	0 0%	0 1%	2 1%	11 7%	0 0%	35 8%	0 0%	8 2%
1991	243	0 0%	0 0%	0 0%	2 1%	0 0%	8 2%	2 1%	0 0%	3 3%	0 0%	2 5%	0 0%	16 5%	0 0%	0 8%	6 6%	23 5%	0 0%	16 5%	0 0%	18 1%
1992	384	0 0%	0 0%	0 0%	0 0%	0 8%	7 6%	4 2%	0 0%	2 9%	0 0%	2 9%	0 0%	7 6%	0 0%	0 0%	10 2%	16 7%	0 0%	8 1%	0 0%	39 3%
1993	594	0 0%	0 0%	0 0%	0 0%	0 0%	12 5%	1 9%	0 3%	3 5%	0 0%	3 2%	0 0%	2 9%	0 0%	0 7%	3 4%	18 4%	0 0%	19 0%	0 0%	34 3%
1994	1002	0 0%	0 0%	0 0%	0 0%	0 0%	4 6%	0 5%	0 0%	2 4%	0 0%	2 5%	0 0%	0 8%	0 0%	0 0%	5 2%	19 9%	0 0%	17 1%	0 4%	46 7%
1995	1736	0 0%	0 0%	0 0%	0 0%	0 4%	5 4%	3 1%	0 0%	1 7%	0 0%	0 4%	0 0%	2 6%	0 0%	0 0%	1 5%	24 4%	0 0%	30 8%	0 0%	29 6%
1996	962	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	3 3%	0 0%	0 8%	0 0%	1 7%	0 0%	0 0%	1 6%	21 3%	0 0%	40 5%	0 0%	29 4%
1997	626	0 0%	0 3%	0 0%	0 0%	0 5%	2 7%	5 6%	0 0%	0 6%	0 0%	0 2%	0 0%	0 8%	0 0%	1 0%	0 8%	21 9%	0 0%	17 9%	1 3%	46 5%
1998	1097	0 2%	0 0%	0 0%	0 0%	0 4%	0 5%	0 7%	0 0%	1 5%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 5%	11 3%	0 0%	35 9%	0 7%	47 9%
1999	1474	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	2 7%	0 0%	2 9%	0 0%	0 0%	0 0%	2 8%	0 0%	0 3%	1 3%	18 9%	0 0%	42 7%	0 0%	27 8%
2000	579	0 0%	0 0%	0 0%	0 0%	0 0%	15 2%	3 1%	0 0%	2 9%	0 0%	0 0%	0 0%	1 7%	0 0%	1 6%	2 6%	15 7%	0 0%	43 2%	0 0%	14 0%
2001	965	0 2%	0 0%	0 0%	0 0%	0 0%	3 2%	2 9%	0 0%	1 3%	0 0%	0 0%	0 0%	4 2%	0 0%	0 4%	0 4%	15 4%	0 0%	29 2%	0 0%	42 6%
2002	1365	0 0%	0 0%	0 0%	0 0%	0 0%	7 0%	3 4%	0 0%	0 8%	0 0%	0 0%	0 0%	3 4%	0 0%	0 6%	0 6%	7 8%	0 0%	41 2%	3 2%	32 0%
2003	1587	0 1%	0 0%	0 0%	0 0%	0 6%	5 5%	1 6%	0 0%	1 1%	0 0%	0 0%	0 0%	4 3%	0 0%	0 0%	0 4%	11 2%	0 0%	43 5%	1 8%	29 9%
2004	1629	0 0%	0 1%	0 0%	0 0%	0 0%	5 9%	1 1%	0 0%	1 2%	0 0%	0 0%	0 0%	6 8%	0 0%	0 6%	0 6%	8 0%	0 0%	31 2%	0 0%	44 6%
2005	1160	0 0%	0 0%	0 0%	0 0%	0 0%	5 5%	2 0%	0 0%	3 4%	0 0%	0 3%	0 0%	3 7%	0 0%	1 9%	0 6%	6 1%	0 0%	10 3%	0 0%	66 1%
2006	2793	0 1%	0 0%	0 0%	0 0%	0 0%	6 3%	1 6%	0 0%	1 7%	0 0%	0 0%	0 0%	5 2%	0 0%	0 3%	0 8%	5 9%	0 0%	38 8%	0 0%	39 3%
2007	2981	0 0%	0 0%	0 0%	0 1%	0 0%	10 1%	1 4%	0 0%	0 8%	0 0%	0 0%	0 0%	4 4%	0 0%	0 3%	0 8%	10 5%	0 0%	35 7%	0 0%	36 0%
2008	972	0 0%	0 0%	0 0%	0 0%	0 0%	5 3%	3 4%	0 0%	4 2%	0 0%	0 0%	0 0%	1 5%	0 0%	0 4%	0 8%	10 2%	0 0%	47 8%	0 0%	26 2%
1979-2008	980	0 0%	0 0%	0 0%	0 2%	0 2%	9 2%	2 2%	0 3%	3 7%	0 2%	1 6%	0 0%	4 7%	0 1%	0 4%	4 7%	16 2%	0 0%	27 4%	0 4%	28 5%
1979-1984	201	0 0%	0 0%	0 0%	1 3%	0 0%	23 0%	0 0%	1 3%	5 8%	0 0%	4 3%	0 0%	3 0%	0 0%	0 0%	12 9%	33 8%	0 0%	11 0%	0 0%	3 7%
1985-1995	626	0 0%	0 0%	0 0%	0 3%	0 3%	11 5%	2 4%	0 5%	5 3%	0 4%	2 8%	0 0%	6 9%	0 2%	0 2%	7 6%	17 3%	0 0%	21 2%	0 3%	22 8%
1996-1998	895	0 1%	0 1%	0 0%	0 0%	0 3%	1 1%	2 5%	0 0%	1 8%	0 0%	0 3%	0 0%	1 0%	0 0%	0 3%	0 9%	18 2%	0 0%	31 4%	0 7%	41 3%
1999-2008	1550	0 0%	0 0%	0 0%	0 0%	0 1%	6 5%	2 3%	0 0%	2 0%	0 0%	0 0%	0 0%	3 8%	0 0%	0 6%	0 9%	11 0%	0 0%	36 4%	0 5%	35 9%

Appendix C.38. Percent distribution of Nisqually Fall Fingerling total fishing mortalities among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	287	0.0%	0.0%	0.0%	1.7%	0.0%	13.9%	0.0%	1.7%	7.3%	0.0%	4.9%	0.0%	3.1%	0.0%	0.0%	8.4%	56.8%	0.0%	1.0%	0.0%	1.0%
1984	244	0.0%	0.0%	0.0%	0.0%	0.0%	31.1%	0.0%	0.0%	1.2%	0.0%	2.5%	0.0%	1.6%	0.0%	0.0%	15.2%	24.6%	0.0%	18.9%	0.0%	4.9%
1985	84	0.0%	0.0%	0.0%	0.0%	0.0%	28.6%	3.6%	0.0%	0.0%	0.0%	4.8%	0.0%	7.1%	0.0%	0.0%	21.4%	21.4%	0.0%	9.5%	0.0%	3.6%
1986	128	0.0%	0.0%	0.0%	0.0%	0.0%	16.4%	0.0%	0.0%	12.5%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	10.9%	19.5%	0.0%	21.9%	0.0%	17.2%
1987	187	0.0%	0.0%	0.0%	0.0%	0.0%	14.4%	0.0%	1.1%	10.7%	2.7%	1.6%	0.0%	5.9%	0.0%	0.0%	1.6%	21.4%	0.0%	28.3%	2.1%	10.2%
1988	381	0.0%	0.0%	0.0%	0.8%	2.6%	5.8%	0.0%	3.7%	15.0%	2.1%	4.5%	0.0%	8.1%	0.0%	0.0%	7.9%	19.7%	0.0%	8.1%	0.0%	21.8%
1989	1155	0.0%	0.0%	0.0%	0.4%	0.0%	5.4%	6.0%	0.0%	3.0%	0.0%	3.8%	0.0%	14.6%	2.2%	0.3%	11.7%	18.4%	0.0%	26.6%	0.4%	7.2%
1990	1387	0.0%	0.0%	0.0%	0.0%	0.0%	23.5%	5.9%	0.0%	3.2%	0.2%	0.1%	0.0%	10.5%	0.0%	0.1%	1.9%	13.0%	0.0%	33.8%	0.0%	7.6%
1991	274	0.0%	0.0%	0.0%	2.2%	0.0%	9.1%	1.8%	0.0%	3.6%	0.0%	2.2%	0.0%	17.2%	0.0%	0.7%	6.2%	25.9%	0.0%	15.0%	0.0%	16.1%
1992	516	0.0%	0.0%	0.0%	0.0%	1.0%	7.2%	3.7%	0.0%	2.9%	0.0%	2.1%	0.0%	7.0%	0.0%	0.0%	11.8%	28.5%	0.0%	6.6%	0.0%	29.3%
1993	688	0.0%	0.0%	0.0%	0.0%	0.0%	14.7%	1.7%	0.4%	4.1%	0.0%	2.9%	0.0%	3.2%	0.0%	0.7%	3.8%	20.9%	0.0%	17.9%	0.0%	29.7%
1994	1416	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	0.4%	0.0%	2.3%	0.0%	2.6%	0.0%	0.6%	0.0%	0.0%	5.2%	38.1%	0.0%	13.0%	0.4%	33.1%
1995	1996	0.0%	0.0%	0.0%	0.0%	0.4%	8.0%	3.0%	0.0%	2.0%	0.0%	0.7%	0.0%	2.4%	0.0%	0.0%	1.5%	27.7%	0.0%	28.8%	0.0%	25.8%
1996	1068	0.2%	0.0%	0.0%	0.0%	0.0%	0.7%	1.2%	0.0%	3.6%	0.0%	0.9%	0.0%	1.6%	0.0%	0.0%	1.5%	26.2%	0.0%	37.6%	0.0%	26.5%
1997	732	0.0%	0.5%	0.0%	0.0%	0.5%	3.1%	5.3%	0.0%	0.7%	0.0%	0.4%	0.0%	0.8%	0.0%	1.0%	0.8%	29.2%	0.0%	16.4%	1.4%	39.8%
1998	1368	0.2%	0.0%	0.0%	0.0%	0.4%	0.4%	0.7%	0.0%	1.5%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.5%	25.6%	0.0%	31.1%	0.7%	38.4%
1999	1656	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	2.7%	0.0%	3.3%	0.0%	0.0%	0.0%	3.1%	0.0%	0.3%	1.3%	23.4%	0.0%	40.8%	0.0%	24.8%
2000	723	0.0%	0.0%	0.0%	0.0%	0.0%	13.7%	3.0%	0.0%	2.8%	0.0%	0.0%	0.0%	1.7%	0.0%	1.4%	2.2%	28.6%	0.0%	35.4%	0.0%	11.2%
2001	1167	0.3%	0.0%	0.0%	0.0%	0.0%	3.0%	2.8%	0.0%	1.5%	0.0%	0.0%	0.0%	4.5%	0.0%	0.4%	0.4%	25.9%	0.0%	26.0%	0.0%	35.2%
2002	1512	0.0%	0.0%	0.0%	0.0%	0.0%	6.8%	3.6%	0.0%	0.9%	0.0%	0.0%	0.0%	3.7%	0.0%	0.6%	0.6%	12.2%	0.0%	39.2%	3.4%	28.9%
2003	1740	0.1%	0.0%	0.0%	0.0%	0.6%	5.3%	1.9%	0.0%	1.3%	0.0%	0.0%	0.0%	4.6%	0.0%	0.0%	0.4%	15.1%	0.0%	41.6%	1.9%	27.3%
2004	1804	0.0%	0.1%	0.0%	0.0%	0.0%	5.9%	1.2%	0.0%	1.3%	0.0%	0.0%	0.0%	7.4%	0.0%	0.7%	0.7%	12.8%	0.0%	29.7%	0.0%	40.2%
2005	1322	0.0%	0.0%	0.0%	0.0%	0.0%	5.5%	2.1%	0.0%	3.9%	0.0%	0.3%	0.0%	4.2%	0.0%	2.0%	0.7%	13.6%	0.0%	9.8%	0.0%	58.0%
2006	3039	0.1%	0.0%	0.0%	0.0%	0.0%	6.3%	1.7%	0.0%	2.0%	0.0%	0.0%	0.0%	5.9%	0.0%	0.4%	0.8%	8.7%	0.0%	38.1%	0.0%	36.1%
2007	3233	0.0%	0.0%	0.0%	0.1%	0.0%	9.9%	1.4%	0.0%	0.8%	0.0%	0.0%	0.0%	4.7%	0.0%	0.4%	0.8%	14.5%	0.0%	34.2%	0.0%	33.2%
2008	1073	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	3.5%	0.0%	4.7%	0.0%	0.0%	0.0%	1.8%	0.0%	0.5%	0.8%	13.7%	0.0%	46.1%	0.0%	23.8%
1979-2008	1122	0.0%	0.0%	0.0%	0.2%	0.2%	9.6%	2.2%	0.3%	3.7%	0.2%	1.4%	0.0%	4.8%	0.1%	0.4%	4.6%	22.5%	0.0%	25.2%	0.4%	24.3%
1979-1984	266	0.0%	0.0%	0.0%	0.9%	0.0%	22.5%	0.0%	0.9%	4.3%	0.0%	3.7%	0.0%	2.4%	0.0%	0.0%	11.8%	40.7%	0.0%	9.9%	0.0%	3.0%
1985-1995	747	0.0%	0.0%	0.0%	0.3%	0.4%	12.5%	2.4%	0.5%	5.4%	0.5%	2.4%	0.0%	7.0%	0.2%	0.2%	7.6%	23.1%	0.0%	19.0%	0.3%	18.3%
1996-1998	1056	0.1%	0.2%	0.0%	0.0%	0.3%	1.4%	2.4%	0.0%	1.9%	0.0%	0.4%	0.0%	1.0%	0.0%	0.3%	0.9%	27.0%	0.0%	28.4%	0.7%	34.9%
1999-2008	1727	0.0%	0.0%	0.0%	0.0%	0.1%	6.2%	2.4%	0.0%	2.2%	0.0%	0.0%	0.0%	4.1%	0.0%	0.7%	0.9%	16.9%	0.0%	34.1%	0.5%	31.9%

Appendix C.39. Percent distribution of Nooksack Spring Yearling reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	191	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.9%	0.0%	4.7%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	84.8%
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	116	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	13.8%	6.9%	0.0%	0.0%	0.0%	73.3%
1990	41	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.6%	0.0%	14.6%	0.0%	2.4%	0.0%	0.0%	4.9%	34.1%	0.0%	0.0%	0.0%	29.3%
1991	285	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	7.0%	0.0%	32.6%	0.0%	6.3%	0.0%	2.1%	0.0%	0.0%	7.0%	5.3%	0.0%	1.4%	0.0%	36.1%
1992	857	0.4%	0.4%	0.0%	0.0%	0.4%	17.5%	2.3%	1.3%	11.0%	0.9%	1.6%	0.0%	0.9%	0.0%	0.0%	0.4%	7.8%	0.0%	0.0%	0.0%	55.2%
1993	618	0.0%	0.0%	0.0%	0.0%	0.0%	4.4%	7.6%	2.3%	12.5%	0.0%	6.5%	0.0%	0.8%	0.0%	0.0%	5.3%	11.5%	0.0%	0.0%	0.0%	49.2%
1994	511	0.6%	0.0%	0.0%	0.0%	0.0%	5.1%	0.0%	6.1%	28.2%	0.0%	1.0%	0.0%	0.2%	0.0%	0.0%	6.3%	3.3%	0.0%	0.0%	0.0%	49.3%
1995	171	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	22.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	7.0%	0.0%	0.0%	0.0%	67.3%
1996	186	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	3.2%	0.0%	12.4%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	3.2%	0.0%	0.0%	0.0%	79.6%
1997	113	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.3%	0.0%	14.2%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%	3.5%	15.9%	0.0%	0.0%	0.0%	58.4%
1998	114	0.0%	0.0%	0.0%	0.0%	3.5%	0.0%	6.1%	0.0%	15.8%	0.0%	5.3%	0.0%	0.0%	0.0%	0.0%	1.8%	5.3%	0.0%	2.6%	0.0%	59.6%
1999	195	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	1.0%	0.0%	23.6%	0.0%	0.0%	0.0%	2.6%	0.0%	0.0%	1.5%	1.0%	0.0%	3.1%	0.0%	64.6%
2000	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2001	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2005	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2006	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2007	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979-2008	283	0.1%	0.0%	0.0%	0.0%	0.4%	2.6%	2.7%	0.8%	16.9%	0.1%	3.6%	0.0%	0.8%	0.0%	0.0%	3.9%	8.6%	0.0%	0.6%	0.0%	58.9%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	349	0.1%	0.0%	0.0%	0.0%	0.0%	3.6%	2.1%	1.2%	17.1%	0.1%	4.3%	0.0%	0.8%	0.0%	0.0%	5.1%	9.7%	0.0%	0.2%	0.0%	55.6%
1996-1998	138	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	4.9%	0.0%	14.1%	0.0%	2.6%	0.0%	0.2%	0.0%	0.0%	1.8%	8.1%	0.0%	0.9%	0.0%	65.9%
1999-2008	195	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	1.0%	0.0%	23.6%	0.0%	0.0%	0.0%	2.6%	0.0%	0.0%	1.5%	1.0%	0.0%	3.1%	0.0%	64.6%

Appendix C.40. Percent distribution of Nooksack Spring Yearling total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	237	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.8%	2.5%	9.3%	0.4%	4.6%	0.0%	0.4%	0.0%	0.0%	8.0%	3.8%	0.0%	0.0%	0.0%	68.4%
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	124	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.5%	8.9%	0.0%	0.0%	0.0%	68.5%
1990	71	0.0%	0.0%	0.0%	0.0%	0.0%	8.5%	1.4%	0.0%	26.8%	1.4%	12.7%	0.0%	1.4%	0.0%	0.0%	2.8%	28.2%	0.0%	0.0%	0.0%	16.9%
1991	336	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	6.8%	0.0%	36.9%	0.0%	6.3%	0.0%	2.4%	0.0%	0.0%	6.5%	6.8%	0.0%	1.2%	0.0%	30.7%
1992	1001	1.7%	1.5%	0.0%	0.0%	0.4%	19.5%	2.3%	1.7%	12.0%	1.0%	1.6%	0.0%	1.0%	0.0%	0.0%	0.4%	9.7%	0.0%	0.0%	0.0%	47.3%
1993	666	0.0%	0.0%	0.0%	0.0%	0.0%	4.8%	7.7%	3.3%	14.3%	0.0%	6.2%	0.0%	0.8%	0.0%	0.0%	5.1%	12.3%	0.0%	0.0%	0.0%	45.6%
1994	530	0.6%	0.0%	0.0%	0.0%	0.0%	5.1%	0.0%	6.0%	29.8%	0.0%	0.9%	0.0%	0.2%	0.0%	0.0%	6.0%	3.8%	0.0%	0.0%	0.0%	47.5%
1995	192	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	24.5%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	3.1%	12.0%	0.0%	0.0%	0.0%	59.9%
1996	198	0.0%	0.0%	0.0%	0.0%	1.0%	0.5%	3.0%	0.0%	14.6%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	74.7%
1997	128	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.5%	0.0%	15.6%	0.0%	2.3%	0.0%	0.0%	0.0%	0.0%	3.1%	21.9%	0.0%	0.0%	0.0%	51.6%
1998	128	0.0%	0.0%	0.0%	0.0%	4.7%	0.0%	6.3%	0.0%	17.2%	0.0%	6.3%	0.0%	0.0%	0.0%	0.0%	1.6%	8.6%	0.0%	2.3%	0.0%	53.1%
1999	207	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	1.4%	0.0%	26.1%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	1.4%	1.9%	0.0%	2.9%	0.0%	60.9%
2000	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2001	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2005	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2006	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2007	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979-2008	318	0.2%	0.1%	0.0%	0.0%	0.5%	3.7%	2.9%	1.1%	19.6%	0.2%	3.4%	0.0%	0.8%	0.0%	0.0%	4.4%	10.3%	0.0%	0.5%	0.0%	52.1%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	395	0.3%	0.2%	0.0%	0.0%	0.0%	5.2%	2.4%	1.7%	20.2%	0.4%	4.1%	0.0%	0.8%	0.0%	0.0%	5.8%	10.7%	0.0%	0.1%	0.0%	48.1%
1996-1998	151	0.0%	0.0%	0.0%	0.0%	1.9%	0.2%	4.9%	0.0%	15.8%	0.0%	2.9%	0.0%	0.2%	0.0%	0.0%	1.6%	12.0%	0.0%	0.8%	0.0%	59.8%
1999-2008	207	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	1.4%	0.0%	26.1%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	1.4%	1.9%	0.0%	2.9%	0.0%	60.9%

Appendix C.41. Percent distribution of Nooksack Spring Fingerling reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	949	1 4%	0 0%	0 0%	0 0%	1 2%	0 0%	4 0%	0 0%	17 0%	0 0%	4 8%	0 0%	0 7%	0 0%	0 0%	0 2%	6 4%	0 0%	0 1%	0 0%	64 2%
1997	1943	3 5%	0 2%	0 7%	0 2%	0 1%	1 7%	4 1%	0 0%	10 1%	0 1%	0 4%	0 0%	0 5%	0 0%	0 0%	0 5%	5 2%	0 0%	0 8%	0 0%	72 1%
1998	1476	8 0%	0 2%	0 0%	0 0%	0 0%	1 7%	3 2%	0 0%	3 0%	0 0%	0 1%	0 0%	0 2%	0 0%	0 0%	0 1%	0 6%	0 0%	0 0%	0 0%	82 9%
1999	1611	1 6%	0 9%	0 0%	0 0%	0 9%	2 2%	5 3%	0 0%	3 5%	0 0%	0 0%	0 0%	1 3%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	83 7%
2000	867	4 5%	0 2%	0 0%	0 0%	0 0%	20 5%	4 6%	0 0%	11 6%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 2%	0 3%	0 0%	0 0%	0 0%	57 7%
2001	1338	1 4%	0 0%	0 0%	0 0%	0 0%	10 1%	4 4%	0 0%	4 2%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	0 5%	0 7%	0 0%	0 3%	0 0%	77 4%
2002	1242	5 5%	0 0%	0 5%	0 8%	1 1%	17 6%	2 1%	0 0%	1 3%	0 0%	0 0%	0 0%	0 2%	0 0%	0 4%	0 2%	0 5%	0 0%	0 0%	0 0%	69 9%
2003	733	3 4%	0 0%	0 0%	0 0%	0 5%	13 6%	2 3%	0 0%	5 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	1 8%	0 0%	1 0%	0 0%	71 1%
2004	645	1 2%	0 0%	0 0%	0 3%	0 0%	31 9%	4 8%	0 0%	8 8%	0 0%	0 0%	0 0%	2 6%	0 0%	0 0%	0 0%	1 2%	0 0%	0 5%	0 0%	48 5%
2005	805	3 4%	0 1%	0 0%	0 2%	0 0%	31 9%	3 9%	0 0%	7 5%	0 0%	0 4%	0 0%	0 5%	0 0%	0 2%	0 0%	0 7%	0 0%	0 9%	0 0%	50 3%
2006	517	1 9%	0 0%	0 4%	1 2%	0 0%	32 3%	6 2%	0 0%	7 4%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	0 2%	2 9%	0 0%	2 3%	0 4%	43 7%
2007	525	5 3%	0 0%	1 0%	0 4%	0 0%	24 8%	9 0%	0 0%	6 9%	0 0%	0 2%	0 0%	0 4%	0 0%	0 0%	0 0%	3 2%	0 0%	0 8%	0 4%	47 8%
2008	944	1 1%	0 1%	0 0%	0 3%	0 0%	20 8%	12 9%	0 0%	13 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 4%	0 4%	4 7%	0 0%	2 6%	0 0%	42 5%
1979-2008	1046	3 2%	0 1%	0 2%	0 3%	0 3%	16 1%	5 1%	0 0%	7 7%	0 0%	0 4%	0 0%	0 8%	0 0%	0 1%	0 2%	2 2%	0 0%	0 7%	0 1%	62 4%
1979-1984	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1996-1998	1456	4 3%	0 1%	0 2%	0 1%	0 4%	1 1%	3 8%	0 0%	10 0%	0 0%	1 8%	0 0%	0 5%	0 0%	0 0%	0 3%	4 1%	0 0%	0 3%	0 0%	73 1%
1999-2008	923	2 9%	0 1%	0 2%	0 3%	0 3%	20 6%	5 5%	0 0%	7 0%	0 0%	0 1%	0 0%	0 9%	0 0%	0 1%	0 2%	1 7%	0 0%	0 8%	0 1%	59 3%

Appendix C.42. Percent distribution of Nooksack Spring Fingerling total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	1098	3.5%	0.0%	0.2%	0.0%	1.0%	1.0%	4.2%	0.0%	18.7%	0.0%	5.6%	0.0%	0.7%	0.0%	0.0%	0.2%	9.5%	0.0%	0.1%	0.0%	55.5%
1997	2071	3.9%	0.4%	0.8%	0.2%	0.1%	2.1%	4.1%	0.0%	11.3%	0.0%	1.3%	0.0%	0.6%	0.0%	0.0%	0.4%	6.3%	0.0%	0.8%	0.0%	67.6%
1998	1519	8.8%	0.3%	0.0%	0.0%	0.0%	1.8%	3.6%	0.0%	3.4%	0.0%	0.1%	0.0%	0.2%	0.0%	0.0%	0.1%	1.1%	0.0%	0.0%	0.0%	80.6%
1999	1675	2.0%	1.7%	0.0%	0.0%	1.0%	2.2%	5.7%	0.0%	4.3%	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	80.5%
2000	925	5.3%	0.2%	0.0%	0.0%	0.0%	21.0%	5.1%	0.0%	13.3%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	0.6%	0.0%	0.0%	0.0%	54.1%
2001	1393	1.9%	0.0%	0.0%	0.0%	0.0%	10.2%	5.0%	0.0%	5.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.5%	1.6%	0.0%	0.3%	0.0%	74.4%
2002	1280	6.3%	0.0%	0.5%	0.9%	1.4%	17.7%	2.3%	0.0%	1.4%	0.0%	0.0%	0.0%	0.2%	0.0%	0.5%	0.2%	0.7%	0.0%	0.0%	0.0%	67.8%
2003	777	3.9%	0.0%	0.0%	0.0%	0.6%	14.2%	3.0%	0.0%	6.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	3.3%	0.0%	0.9%	0.0%	67.1%
2004	685	1.5%	0.0%	0.0%	0.3%	0.0%	31.5%	5.4%	0.0%	10.5%	0.0%	0.0%	0.0%	3.1%	0.0%	0.0%	0.0%	1.6%	0.0%	0.4%	0.0%	45.7%
2005	848	3.8%	0.1%	0.0%	0.2%	0.0%	32.4%	4.4%	0.0%	8.3%	0.0%	0.5%	0.0%	0.5%	0.0%	0.2%	0.0%	1.1%	0.0%	0.8%	0.0%	47.8%
2006	558	2.3%	0.0%	0.5%	1.3%	0.0%	32.1%	6.8%	0.0%	8.6%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.2%	3.9%	0.0%	2.2%	0.4%	40.5%
2007	600	5.7%	0.0%	1.7%	0.3%	0.0%	24.7%	9.5%	0.0%	7.8%	0.0%	0.2%	0.0%	0.3%	0.0%	0.0%	0.0%	7.0%	0.0%	0.7%	0.3%	41.8%
2008	1027	1.6%	0.2%	0.0%	0.4%	0.0%	19.7%	13.4%	0.0%	15.3%	0.0%	0.0%	0.0%	1.3%	0.0%	0.5%	0.4%	5.6%	0.0%	2.6%	0.0%	39.0%
1979-2008	1112	3.9%	0.2%	0.3%	0.3%	0.3%	16.2%	5.6%	0.0%	8.8%	0.0%	0.6%	0.0%	0.8%	0.0%	0.1%	0.2%	3.4%	0.0%	0.7%	0.1%	58.6%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1996-1998	1563	5.4%	0.2%	0.3%	0.1%	0.4%	1.6%	3.9%	0.0%	11.1%	0.0%	2.3%	0.0%	0.5%	0.0%	0.0%	0.2%	5.6%	0.0%	0.3%	0.0%	67.9%
1999-2008	977	3.4%	0.2%	0.3%	0.3%	0.3%	20.6%	6.1%	0.0%	8.1%	0.0%	0.1%	0.0%	0.9%	0.0%	0.1%	0.2%	2.7%	0.0%	0.8%	0.1%	55.9%

Appendix C.43. Percent distribution of Puntledge River Summer reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	1470	1 5%	0 3%	0 2%	2 6%	0 3%	0 7%	0 0%	19 9%	16 9%	8 0%	12 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	37 0%
1980	761	2 4%	0 0%	0 4%	2 0%	1 3%	5 3%	0 0%	16 2%	23 1%	5 8%	10 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	33 5%
1981	506	0 8%	0 0%	0 0%	4 5%	4 0%	0 0%	0 0%	21 9%	37 5%	7 3%	8 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	15 0%
1982	507	0 8%	0 4%	0 0%	3 7%	1 2%	1 8%	0 0%	5 5%	16 2%	14 4%	22 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	33 3%
1983	489	1 0%	0 2%	0 0%	8 0%	3 1%	2 5%	0 0%	12 7%	13 3%	16 2%	8 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	35 2%
1984	300	0 0%	1 0%	0 0%	2 0%	1 0%	2 0%	0 0%	5 3%	17 7%	5 0%	5 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	60 3%
1985	133	10 5%	0 8%	2 3%	6 0%	6 0%	0 0%	0 0%	0 0%	32 3%	1 5%	14 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	26 3%
1986	180	5 6%	0 0%	4 4%	2 8%	0 0%	2 8%	0 0%	10 6%	32 2%	3 9%	11 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	26 1%
1987	148	2 7%	0 7%	0 0%	12 2%	10 1%	0 0%	4 7%	0 0%	16 9%	2 0%	6 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	43 9%
1988	92	12 0%	0 0%	0 0%	0 0%	14 1%	0 0%	0 0%	0 0%	17 4%	0 0%	5 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	51 1%
1989	62	3 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	48 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	48 4%
1990	96	8 3%	0 0%	0 0%	0 0%	4 2%	0 0%	0 0%	0 0%	8 3%	3 1%	14 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	61 5%
1991	97	6 2%	6 2%	0 0%	0 0%	9 3%	0 0%	0 0%	0 0%	26 8%	0 0%	11 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	40 2%
1992	87	0 0%	0 0%	0 0%	0 0%	3 4%	0 0%	0 0%	3 4%	33 3%	0 0%	21 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	37 9%
1993	70	0 0%	0 0%	0 0%	0 0%	11 4%	0 0%	0 0%	0 0%	48 6%	0 0%	7 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	32 9%
1994	28	7 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	53 6%	0 0%	10 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	28 6%
1995	36	5 6%	2 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	30 6%	0 0%	13 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	47 2%
1996	45	0 0%	0 0%	0 0%	0 0%	6 7%	0 0%	0 0%	0 0%	28 9%	0 0%	2 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	62 2%
1997	26	0 0%	0 0%	0 0%	0 0%	7 7%	0 0%	0 0%	0 0%	7 7%	0 0%	3 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	80 8%
1998	< 10 CWTs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1999	48	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	10 4%	0 0%	6 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	83 3%
2000	61	0 0%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	9 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	88 5%
2001	213	2 8%	0 9%	0 0%	0 0%	0 9%	2 3%	0 0%	0 0%	2 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	90 1%
2002	112	4 5%	0 0%	0 0%	0 0%	8 9%	0 0%	9 8%	0 0%	3 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	73 2%
2003	108	0 0%	0 0%	0 0%	0 0%	9 3%	0 0%	0 0%	0 0%	4 6%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	85 2%
2004	98	14 3%	1 0%	0 0%	0 0%	0 0%	3 1%	0 0%	0 0%	8 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	73 5%
2005	306	1 6%	0 0%	0 0%	1 3%	9 2%	0 7%	0 0%	0 0%	11 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	75 5%
2006	221	6 8%	8 6%	0 0%	0 9%	2 7%	0 0%	1 8%	0 0%	2 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	76 9%
2007	158	20 3%	5 7%	1 9%	1 3%	5 7%	0 0%	0 0%	0 0%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	63 3%
2008	102	2 0%	2 0%	2 9%	0 0%	5 9%	0 0%	8 8%	0 0%	6 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	71 6%
1979-2008	219	4 0%	1 1%	0 4%	1 6%	7 1%	0 7%	0 8%	3 2%	19 1%	2 2%	6 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	53 2%
1979-1984	672	1 1%	0 3%	0 1%	3 8%	1 8%	2 0%	0 0%	13 6%	20 8%	9 4%	11 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	35 7%
1985-1995	94	5 6%	0 9%	0 6%	1 9%	5 3%	0 3%	0 4%	1 3%	31 7%	1 0%	10 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	40 4%
1996-1998	26	0 0%	0 0%	0 0%	0 0%	34 0%	0 0%	0 0%	0 0%	12 2%	0 0%	2 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	51 8%
1999-2008	143	5 2%	2 0%	0 5%	0 3%	4 3%	0 6%	2 0%	0 0%	6 2%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	78 1%

Appendix C.44. Percent distribution of Puntledge River Summer total fishing mortalities among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	1561	1 8%	0 3%	0 3%	2 9%	0 3%	1 2%	0 0%	19 6%	17 1%	9 1%	12 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	35 1%
1980	822	2 8%	0 0%	0 5%	2 3%	1 3%	6 1%	0 0%	16 2%	22 9%	6 6%	10 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	31 0%
1981	547	0 7%	0 0%	0 0%	5 5%	4 0%	0 0%	0 0%	21 4%	37 3%	8 6%	8 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	13 9%
1982	567	1 2%	0 5%	0 0%	4 2%	1 4%	2 1%	0 0%	5 6%	15 7%	16 4%	22 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	29 8%
1983	531	1 9%	0 2%	0 0%	8 5%	3 2%	2 6%	0 0%	12 8%	13 2%	17 3%	7 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	32 4%
1984	314	0 0%	1 0%	0 0%	2 2%	1 3%	2 2%	0 0%	5 7%	18 2%	5 7%	6 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	57 6%
1985	153	13 1%	1 3%	3 9%	6 5%	6 5%	0 0%	0 0%	0 0%	30 7%	1 3%	13 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	22 9%
1986	199	5 0%	0 0%	5 5%	3 0%	0 0%	3 0%	0 0%	12 6%	31 2%	4 5%	11 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	23 6%
1987	162	2 5%	1 2%	0 0%	15 4%	10 5%	0 0%	4 3%	0 0%	16 7%	3 1%	6 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	40 1%
1988	100	11 0%	0 0%	0 0%	0 0%	16 0%	0 0%	0 0%	0 0%	20 0%	0 0%	6 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	47 0%
1989	71	2 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	54 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	42 3%
1990	101	8 9%	0 0%	0 0%	0 0%	4 0%	0 0%	0 0%	0 0%	8 9%	4 0%	15 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	58 4%
1991	121	6 6%	11 6%	0 0%	0 0%	9 9%	0 0%	0 0%	0 0%	28 9%	0 0%	10 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	32 2%
1992	98	0 0%	0 0%	0 0%	0 0%	3 1%	0 0%	0 0%	4 1%	38 8%	0 0%	20 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	33 7%
1993	79	0 0%	0 0%	0 0%	0 0%	11 4%	0 0%	0 0%	0 0%	53 2%	0 0%	6 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	29 1%
1994	32	9 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	56 3%	0 0%	9 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	25 0%
1995	42	4 8%	4 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	33 3%	0 0%	16 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	40 5%
1996	49	0 0%	0 0%	0 0%	0 0%	6 1%	0 0%	0 0%	0 0%	34 7%	0 0%	2 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	57 1%
1997	27	0 0%	0 0%	0 0%	0 0%	11 1%	0 0%	0 0%	0 0%	7 4%	0 0%	3 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	77 8%
1998	11	0 0%	0 0%	0 0%	0 0%	81 8%	0 0%	0 0%	0 0%	9 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	9 1%
1999	52	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	13 5%	0 0%	7 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	76 9%
2000	63	1 6%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	11 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	85 7%
2001	217	3 2%	1 4%	0 0%	0 0%	1 4%	2 3%	0 0%	0 0%	3 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	88 5%
2002	122	5 7%	0 0%	0 0%	0 0%	11 5%	0 0%	11 5%	0 0%	4 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	67 2%
2003	113	0 0%	0 0%	0 0%	0 0%	11 5%	0 0%	0 0%	0 0%	6 2%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	81 4%
2004	105	17 1%	1 0%	0 0%	0 0%	0 0%	2 9%	0 0%	0 0%	10 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	68 6%
2005	329	2 1%	0 0%	0 0%	1 5%	11 6%	0 6%	0 0%	0 0%	14 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	70 2%
2006	252	9 1%	14 3%	0 0%	1 2%	3 2%	0 0%	2 0%	0 0%	2 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	67 5%
2007	177	21 5%	10 2%	2 3%	1 1%	6 8%	0 0%	0 0%	0 0%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	56 5%
2008	116	2 6%	2 6%	6 0%	0 0%	7 8%	0 0%	9 5%	0 0%	8 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	62 9%
1979-2008	237	4 6%	1 7%	0 6%	1 8%	7 5%	0 8%	0 9%	3 3%	20 8%	2 6%	6 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	48 8%
1979-1984	722	1 4%	0 3%	0 1%	4 3%	1 9%	2 4%	0 0%	13 6%	20 7%	10 6%	11 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	33 3%
1985-1995	105	5 8%	1 7%	0 9%	2 3%	5 6%	0 3%	0 4%	1 5%	33 9%	1 2%	10 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	35 9%
1996-1998	29	0 0%	0 0%	0 0%	0 0%	33 0%	0 0%	0 0%	0 0%	17 1%	0 0%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	48 0%
1999-2008	155	6 5%	3 1%	0 8%	0 4%	5 4%	0 6%	2 3%	0 0%	7 6%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	72 5%

Appendix C.45. Percent distribution of Queets Fall Fingerling reported catch among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	96	9 4%	0 0%	0 0%	13 5%	0 0%	11 5%	0 0%	0 0%	0 0%	2 1%	3 1%	0 0%	2 1%	6 3%	0 0%	0 0%	3 1%	0 0%	25 0%	0 0%	24 0%
1982	231	12 6%	2 6%	0 0%	18 2%	1 3%	13 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	10 4%	0 0%	0 0%	0 0%	0 0%	16 9%	0 0%	24 2%
1983	147	29 9%	0 0%	0 0%	16 3%	0 0%	6 8%	0 0%	0 0%	0 0%	0 0%	2 7%	0 0%	0 7%	11 6%	0 0%	1 4%	0 0%	0 0%	10 2%	0 0%	20 4%
1984	144	16 0%	0 7%	0 0%	19 4%	2 1%	8 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	4 9%	0 0%	0 0%	0 0%	0 0%	23 6%	0 0%	22 9%
1985	250	15 6%	0 0%	0 0%	31 6%	0 0%	2 0%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%	0 0%	2 0%	0 0%	0 0%	1 2%	0 0%	12 4%	0 0%	33 6%
1986	284	17 3%	0 0%	1 1%	11 6%	0 0%	7 0%	0 0%	0 0%	0 0%	1 8%	1 1%	0 0%	0 0%	2 5%	0 0%	0 0%	0 0%	0 0%	7 4%	0 0%	50 4%
1987	537	22 3%	0 2%	0 0%	11 7%	0 9%	0 7%	0 0%	0 0%	0 0%	0 9%	0 6%	0 0%	0 6%	1 5%	0 0%	0 2%	0 6%	0 0%	21 0%	0 0%	38 7%
1988	727	14 4%	0 8%	1 7%	7 8%	0 0%	4 0%	1 1%	0 0%	0 0%	2 5%	0 4%	0 0%	0 0%	0 8%	0 0%	0 0%	3 3%	0 0%	15 8%	0 0%	47 3%
1989	569	11 1%	0 0%	0 0%	9 1%	1 1%	7 6%	0 0%	0 0%	0 0%	0 5%	0 2%	0 0%	0 0%	0 5%	0 0%	0 0%	1 6%	0 0%	27 2%	0 0%	41 1%
1990	1265	12 6%	0 0%	0 0%	5 5%	1 8%	6 6%	0 0%	0 0%	0 0%	0 3%	0 3%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	13 0%	0 0%	58 9%
1991	1102	20 5%	0 2%	1 1%	9 7%	1 3%	4 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 5%	0 0%	15 4%	0 0%	46 3%
1992	631	8 4%	0 8%	2 2%	7 8%	1 9%	17 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	1 0%	0 8%	0 0%	0 0%	0 0%	18 4%	0 0%	41 7%
1993	613	15 5%	0 0%	0 7%	14 0%	2 1%	12 6%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 5%	0 0%	2 0%	0 0%	0 8%	0 0%	16 0%	0 0%	35 6%
1994	1049	16 1%	0 3%	0 5%	21 7%	1 5%	4 1%	1 0%	0 0%	0 3%	0 2%	0 4%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	20 9%	0 0%	32 4%
1995	746	17 3%	0 0%	1 6%	6 0%	3 4%	0 7%	0 4%	0 0%	0 3%	0 0%	0 1%	0 0%	0 7%	0 0%	0 0%	0 3%	0 0%	0 0%	33 1%	0 0%	36 2%
1996	714	10 4%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	17 5%	0 6%	70 2%
1997	903	34 4%	0 3%	0 0%	6 1%	0 0%	0 2%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	20 8%	0 0%	37 3%
1998	638	23 7%	0 0%	3 0%	19 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	12 1%	4 4%	37 0%
1999	740	9 2%	0 0%	1 4%	2 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 3%	0 0%	0 0%	0 0%	8 1%	0 0%	77 8%
2000	444	23 0%	0 0%	9 7%	13 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 8%	0 0%	50 0%
2001	448	23 4%	0 0%	5 8%	4 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	1 3%	0 7%	0 0%	0 0%	0 0%	40 6%	0 0%	22 3%
2002	1632	25 4%	0 0%	3 3%	4 8%	2 4%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	24 9%	0 0%	38 7%
2003	1448	20 8%	0 1%	3 6%	10 6%	4 8%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 7%	0 0%	0 0%	0 0%	21 0%	0 0%	37 6%
2004	2549	15 2%	0 4%	3 1%	6 7%	6 5%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 3%	0 1%	0 0%	0 0%	0 0%	11 6%	0 0%	54 1%
2005	2523	14 5%	0 0%	3 3%	6 8%	2 6%	3 6%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 1%	0 0%	0 5%	0 0%	0 0%	0 0%	19 9%	0 0%	48 4%
2006	1076	23 6%	0 4%	2 6%	13 1%	3 3%	4 1%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 7%	0 2%	0 0%	0 0%	0 0%	16 6%	0 0%	34 4%
2007	599	28 5%	0 0%	3 8%	11 2%	13 9%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 3%	0 3%	0 2%	0 0%	0 0%	0 0%	16 4%	0 0%	23 0%
2008	1001	13 1%	0 0%	1 2%	7 1%	4 4%	0 8%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	21 0%	0 0%	50 8%
1979-2008	825	18 0%	0 2%	1 8%	11 1%	2 0%	4 2%	0 2%	0 0%	0 0%	0 3%	0 4%	0 0%	0 4%	1 7%	0 2%	0 1%	0 4%	0 0%	18 2%	0 2%	40 6%
1979-1984	154	17 0%	0 8%	0 0%	16 9%	0 8%	9 9%	0 0%	0 0%	0 0%	0 5%	1 7%	0 0%	1 2%	8 3%	0 0%	0 3%	0 8%	0 0%	18 9%	0 0%	22 9%
1985-1995	707	15 6%	0 2%	0 8%	12 4%	1 3%	6 1%	0 2%	0 0%	0 1%	0 6%	0 4%	0 0%	0 2%	0 9%	0 2%	0 0%	0 7%	0 0%	18 2%	0 0%	42 0%
1996-1998	752	22 8%	0 1%	1 5%	8 4%	0 0%	0 1%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	16 8%	1 6%	48 2%
1999-2008	1246	19 7%	0 1%	3 8%	8 1%	3 8%	1 1%	0 2%	0 0%	0 1%	0 0%	0 0%	0 0%	0 4%	0 4%	0 3%	0 0%	0 0%	0 0%	18 4%	0 0%	43 7%

Appendix C.46. Percent distribution of Queets Fall Fingerling total fishing mortalities among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	115	12 2%	0 0%	0 0%	18 3%	0 0%	13 0%	0 0%	0 0%	0 0%	1 7%	2 6%	0 0%	1 7%	5 2%	0 0%	0 0%	3 5%	0 0%	21 7%	0 0%	20 0%
1982	251	14 3%	2 4%	0 0%	19 9%	1 2%	12 7%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	10 0%	0 0%	0 4%	0 0%	0 0%	15 9%	0 0%	22 3%
1983	198	46 5%	0 0%	0 0%	13 1%	0 0%	5 1%	0 0%	0 0%	0 0%	0 0%	2 0%	0 0%	0 5%	8 6%	0 0%	1 5%	0 0%	0 0%	7 6%	0 0%	15 2%
1984	154	16 2%	0 6%	0 0%	21 4%	2 6%	7 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 6%	4 5%	0 0%	0 0%	0 0%	0 0%	22 7%	0 0%	21 4%
1985	292	20 2%	0 0%	0 0%	33 6%	0 0%	2 1%	0 0%	0 0%	0 0%	0 0%	1 4%	0 0%	0 0%	1 7%	0 0%	0 0%	1 7%	0 0%	10 6%	0 0%	28 8%
1986	329	25 2%	0 0%	1 2%	11 2%	0 0%	7 0%	0 0%	0 0%	0 0%	1 5%	0 9%	0 0%	0 0%	2 1%	0 0%	0 0%	0 0%	0 0%	7 3%	0 0%	43 5%
1987	606	28 5%	0 3%	0 0%	11 7%	1 0%	1 3%	0 0%	0 0%	0 0%	0 8%	0 5%	0 0%	0 5%	1 3%	0 0%	0 2%	0 7%	0 0%	18 8%	0 0%	34 3%
1988	825	17 8%	1 7%	1 6%	9 5%	0 1%	5 6%	1 0%	0 0%	0 0%	2 4%	0 4%	0 0%	0 0%	0 7%	0 0%	0 0%	3 4%	0 0%	14 2%	0 0%	41 7%
1989	661	16 8%	0 2%	0 2%	10 6%	1 1%	8 9%	0 0%	0 0%	0 0%	0 6%	0 3%	0 0%	0 0%	0 5%	0 0%	0 0%	1 7%	0 0%	23 9%	0 0%	35 4%
1990	1351	15 2%	0 1%	0 1%	6 4%	1 9%	7 1%	0 0%	0 0%	0 0%	0 3%	0 3%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	12 6%	0 0%	55 1%
1991	1198	24 4%	0 3%	1 2%	10 1%	1 4%	5 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 5%	0 0%	14 4%	0 0%	42 6%
1992	759	14 0%	3 7%	2 4%	8 7%	1 8%	17 5%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 8%	0 8%	0 0%	0 0%	0 0%	15 5%	0 0%	34 7%
1993	698	19 2%	0 0%	0 7%	15 3%	2 0%	13 6%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 4%	0 0%	1 9%	0 0%	1 0%	0 0%	14 3%	0 0%	31 2%
1994	1210	23 4%	0 7%	0 4%	21 3%	1 5%	4 0%	1 0%	0 0%	0 2%	0 2%	0 3%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	18 3%	0 0%	28 1%
1995	832	21 8%	0 0%	1 8%	7 5%	3 8%	0 8%	0 4%	0 0%	0 2%	0 0%	0 2%	0 0%	0 7%	0 0%	0 0%	0 4%	0 0%	0 0%	29 9%	0 0%	32 5%
1996	803	17 9%	0 0%	1 5%	1 1%	0 1%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	15 9%	0 5%	62 4%
1997	971	38 2%	0 4%	0 0%	6 2%	0 0%	0 2%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	19 6%	0 0%	34 7%
1998	676	25 3%	0 0%	3 1%	19 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	11 5%	4 4%	34 9%
1999	788	13 7%	0 0%	1 9%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 3%	0 0%	0 0%	0 0%	7 7%	0 0%	73 1%
2000	512	27 0%	0 0%	12 1%	14 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 5%	0 0%	43 4%
2001	504	28 6%	0 0%	6 7%	5 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	1 2%	0 6%	0 0%	0 0%	0 0%	36 9%	0 0%	19 8%
2002	1784	29 3%	0 0%	3 6%	5 1%	2 9%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	23 2%	0 0%	35 4%
2003	1573	22 9%	0 1%	3 9%	11 4%	5 8%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 7%	0 0%	0 0%	0 0%	19 6%	0 0%	34 6%
2004	2761	17 3%	0 8%	3 2%	7 2%	8 3%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 3%	0 1%	0 0%	0 0%	0 0%	10 9%	0 0%	49 9%
2005	2621	15 7%	0 0%	3 5%	7 2%	3 1%	3 5%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 1%	0 0%	0 5%	0 0%	0 0%	0 0%	19 4%	0 0%	46 6%
2006	1174	26 2%	0 4%	2 9%	13 6%	3 8%	4 1%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 6%	0 2%	0 0%	0 0%	0 0%	15 4%	0 0%	31 5%
2007	714	32 9%	0 0%	4 3%	11 2%	15 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 4%	0 3%	0 1%	0 0%	0 0%	0 0%	14 1%	0 0%	19 3%
2008	1051	16 3%	0 0%	1 1%	7 0%	4 7%	0 8%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	20 1%	0 0%	48 4%
1979-2008	908	22 4%	0 4%	2 1%	11 8%	2 2%	4 4%	0 2%	0 0%	0 0%	0 3%	0 4%	0 0%	0 4%	1 5%	0 2%	0 1%	0 4%	0 0%	16 6%	0 2%	36 5%
1979-1984	180	22 3%	0 8%	0 0%	18 2%	0 9%	9 7%	0 0%	0 0%	0 0%	0 4%	1 4%	0 0%	1 2%	7 1%	0 0%	0 5%	0 9%	0 0%	17 0%	0 0%	19 7%
1985-1995	796	20 6%	0 6%	0 9%	13 3%	1 3%	6 6%	0 2%	0 0%	0 0%	0 6%	0 4%	0 0%	0 1%	0 8%	0 2%	0 0%	0 8%	0 0%	16 3%	0 0%	37 1%
1996-1998	817	27 1%	0 1%	1 5%	9 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	15 7%	1 6%	44 0%
1999-2008	1348	23 0%	0 1%	4 3%	8 5%	4 4%	1 0%	0 2%	0 0%	0 1%	0 0%	0 0%	0 0%	0 4%	0 4%	0 3%	0 0%	0 0%	0 0%	17 1%	0 0%	40 2%

Appendix C.47. Percent distribution of Quinsam River Fall reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														Esc.
		SEAK			NBC		WCVI		Geo St.		Canada			WA/OR coast			Puget Sound		Terminal				
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport		
1979	1558	4.7%	5.0%	0.7%	5.4%	3.0%	0.0%	0.0%	2.5%	4.2%	10.1%	23.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	41.4%
1980	1573	14.6%	5.0%	2.9%	10.4%	5.2%	0.0%	0.0%	1.6%	5.2%	16.3%	21.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	17.4%
1981	1583	11.0%	2.4%	1.6%	12.8%	6.5%	0.6%	0.0%	2.1%	9.9%	12.3%	17.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	23.7%
1982	1124	16.2%	7.0%	5.0%	8.3%	2.2%	0.4%	0.0%	0.0%	3.8%	6.3%	26.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	24.2%
1983	1142	21.1%	1.5%	0.3%	14.4%	2.7%	0.7%	0.0%	0.3%	4.5%	11.6%	25.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	17.5%
1984	1177	14.2%	5.9%	4.6%	6.3%	4.0%	0.8%	0.0%	0.9%	6.8%	4.9%	21.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	30.3%
1985	1577	25.7%	5.8%	4.3%	5.1%	1.0%	0.1%	0.0%	0.0%	4.1%	3.6%	19.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	30.9%
1986	1559	13.8%	4.3%	2.8%	6.6%	2.9%	0.0%	0.0%	0.1%	6.1%	7.2%	26.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	30.0%
1987	1320	10.7%	3.6%	2.8%	6.3%	6.5%	0.4%	0.4%	0.2%	3.9%	6.1%	24.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	34.8%
1988	1546	18.6%	1.8%	1.2%	6.5%	2.8%	0.7%	0.9%	0.2%	3.5%	2.4%	9.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	51.7%
1989	1665	12.6%	2.8%	2.8%	3.9%	3.2%	0.3%	0.0%	0.0%	7.3%	1.9%	17.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	47.1%
1990	1136	16.0%	2.0%	0.5%	6.2%	8.3%	1.3%	0.0%	1.6%	1.8%	4.6%	14.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	43.0%
1991	771	10.4%	2.9%	1.4%	5.8%	12.3%	0.5%	0.8%	0.6%	3.9%	9.3%	14.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	37.9%
1992	599	12.0%	0.5%	2.5%	10.5%	6.5%	0.3%	0.0%	0.3%	3.3%	9.7%	10.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	43.9%
1993	335	7.8%	3.3%	1.2%	5.7%	8.7%	1.2%	0.0%	0.6%	9.9%	5.7%	22.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.4%
1994	302	5.3%	6.0%	4.0%	9.3%	5.0%	0.0%	0.0%	0.0%	6.0%	1.3%	17.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.4%
1995	234	7.3%	4.7%	0.0%	9.4%	6.4%	0.0%	0.0%	0.0%	6.8%	0.0%	15.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	49.6%
1996	260	6.5%	0.4%	0.0%	0.0%	4.2%	0.0%	0.0%	0.0%	6.2%	0.0%	16.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.2%
1997	423	9.2%	3.3%	2.6%	4.0%	6.9%	0.7%	5.2%	0.0%	9.0%	3.5%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	53.2%
1998	550	14.0%	2.2%	2.0%	0.0%	8.0%	0.0%	0.0%	0.0%	5.5%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	67.8%
1999	901	7.9%	3.1%	3.9%	2.0%	18.0%	0.0%	0.0%	0.0%	1.4%	0.3%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	62.0%
2000	780	12.8%	2.2%	4.9%	0.4%	5.0%	0.0%	0.0%	0.0%	2.8%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	71.3%
2001	1215	9.7%	1.4%	1.8%	0.1%	4.3%	0.0%	0.0%	0.0%	1.7%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	80.9%
2002	886	14.8%	3.2%	0.9%	0.6%	11.2%	0.0%	0.0%	0.0%	2.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	67.0%
2003	481	17.7%	1.7%	0.8%	0.0%	20.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	59.5%
2004	713	8.7%	14.2%	1.7%	0.3%	14.4%	0.0%	0.0%	0.0%	0.7%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	59.0%
2005	862	17.2%	2.8%	2.8%	0.3%	14.6%	0.0%	0.0%	0.0%	1.3%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%
2006	789	16.1%	4.7%	1.1%	0.6%	7.7%	0.0%	0.6%	0.0%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	64.9%
2007	561	19.6%	2.9%	1.1%	3.0%	12.5%	0.0%	0.0%	0.0%	5.9%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	54.4%
2008	388	10.6%	1.3%	0.3%	0.8%	7.5%	0.0%	0.0%	0.0%	3.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	75.8%
1979-2008	934	12.9%	3.6%	2.1%	4.8%	7.4%	0.3%	0.3%	0.4%	4.5%	3.9%	11.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.1%
1979-1984	1360	13.6%	4.5%	2.5%	9.6%	3.9%	0.4%	0.0%	1.2%	5.7%	10.2%	22.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.8%
1985-1995	1004	12.7%	3.4%	2.1%	6.8%	5.8%	0.4%	0.2%	0.3%	5.1%	4.7%	17.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.7%
1996-1998	411	9.9%	2.0%	1.5%	1.3%	6.4%	0.2%	1.7%	0.0%	6.9%	1.2%	6.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	62.4%
1999-2008	758	13.5%	3.7%	1.9%	0.8%	11.5%	0.0%	0.1%	0.0%	2.5%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	65.5%

Appendix C.48. Percent distribution of Quinsam River Fall total fishing mortalities among fisheries and escapement.

	Estimated	AABM							ISBM														
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	1701	5 5%	4 9%	1 1%	6 7%	3 0%	0 1%	0 0%	2 4%	4 1%	11 7%	22 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	37 9%
1980	1721	14 8%	4 8%	3 2%	11 0%	5 1%	0 0%	0 0%	1 5%	5 1%	17 3%	21 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	15 9%
1981	1709	11 1%	2 3%	1 8%	13 9%	6 7%	0 6%	0 0%	2 1%	9 8%	13 0%	16 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	21 9%
1982	1272	18 8%	6 9%	5 4%	8 8%	2 2%	0 4%	0 0%	0 0%	3 6%	6 7%	25 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	21 4%
1983	1322	24 8%	1 4%	0 3%	14 5%	2 9%	0 7%	0 0%	0 2%	4 2%	11 6%	24 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	15 1%
1984	1278	16 3%	5 9%	5 3%	6 5%	4 1%	0 9%	0 0%	0 9%	6 7%	5 0%	20 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	27 9%
1985	1827	27 0%	11 1%	4 3%	4 8%	1 0%	0 1%	0 0%	0 0%	3 8%	3 4%	17 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	26 7%
1986	1892	14 2%	10 7%	3 2%	6 7%	3 0%	0 0%	0 0%	0 2%	5 4%	7 3%	24 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	24 7%
1987	1596	13 9%	8 8%	2 9%	7 1%	5 9%	0 4%	0 3%	0 2%	3 4%	7 0%	21 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	28 8%
1988	1661	18 9%	3 4%	1 3%	7 0%	3 1%	0 8%	0 9%	0 2%	3 8%	2 6%	9 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	48 2%
1989	1910	13 4%	9 3%	2 8%	4 0%	3 1%	0 3%	0 0%	0 0%	7 5%	2 0%	16 3%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	41 1%
1990	1271	17 5%	4 2%	0 6%	6 9%	8 4%	1 4%	0 0%	1 7%	1 9%	5 0%	14 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	38 4%
1991	862	11 4%	6 0%	1 5%	6 3%	11 9%	0 6%	0 7%	0 7%	4 1%	10 0%	13 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	33 9%
1992	682	15 1%	1 9%	2 6%	11 1%	6 6%	0 3%	0 0%	0 4%	3 4%	10 0%	10 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	38 6%
1993	386	8 5%	6 2%	1 3%	6 5%	8 5%	1 3%	0 0%	0 8%	10 6%	6 5%	20 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	29 0%
1994	357	6 4%	13 7%	3 9%	9 5%	4 8%	0 0%	0 0%	0 0%	6 2%	1 4%	15 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	38 4%
1995	291	8 6%	7 6%	0 0%	11 3%	6 9%	0 0%	0 0%	0 0%	6 5%	0 0%	19 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	39 9%
1996	287	7 3%	0 7%	0 0%	1 4%	4 2%	0 0%	0 0%	0 0%	7 0%	0 0%	19 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	59 9%
1997	486	10 3%	5 1%	3 1%	4 3%	8 2%	0 8%	4 9%	0 0%	9 5%	3 7%	3 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	46 3%
1998	608	15 5%	3 6%	2 3%	0 0%	10 2%	0 0%	0 0%	0 0%	6 1%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	61 3%
1999	1018	9 4%	4 7%	4 8%	2 2%	20 4%	0 0%	0 0%	0 0%	1 6%	0 4%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	54 9%
2000	854	14 3%	3 0%	5 5%	0 4%	6 1%	0 0%	0 0%	0 0%	3 2%	0 0%	2 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	65 1%
2001	1272	10 8%	2 0%	2 0%	0 1%	5 3%	0 0%	0 0%	0 0%	1 9%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	77 3%
2002	950	15 8%	4 0%	0 9%	0 6%	13 6%	0 0%	0 0%	0 0%	2 4%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	62 5%
2003	545	20 0%	2 4%	0 9%	0 0%	23 9%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	52 5%
2004	885	8 2%	23 4%	1 7%	0 2%	16 7%	0 0%	0 0%	0 0%	0 7%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	47 6%
2005	938	18 2%	3 3%	3 0%	0 4%	17 4%	0 0%	0 0%	0 0%	1 4%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	55 1%
2006	841	17 5%	5 7%	1 3%	0 7%	8 7%	0 0%	0 7%	0 0%	4 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	60 9%
2007	628	21 0%	4 6%	1 1%	3 2%	14 2%	0 0%	0 0%	0 0%	6 4%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	48 6%
2008	407	12 0%	2 5%	0 2%	0 7%	8 1%	0 0%	0 0%	0 0%	4 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	72 2%
1979-2008	1049	14 2%	5 8%	2 3%	5 2%	8 1%	0 3%	0 3%	0 4%	4 6%	4 2%	11 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	43 1%
1979-1984	1500	15 2%	4 4%	2 9%	10 2%	4 0%	0 4%	0 0%	1 2%	5 6%	10 9%	21 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	23 4%
1985-1995	1158	14 1%	7 5%	2 2%	7 4%	5 7%	0 5%	0 2%	0 4%	5 1%	5 0%	16 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	35 2%
1996-1998	460	11 0%	3 2%	1 8%	1 9%	7 5%	0 3%	1 6%	0 0%	7 5%	1 2%	7 9%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	55 9%
1999-2008	834	14 7%	5 6%	2 2%	0 9%	13 4%	0 0%	0 1%	0 0%	2 7%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	59 7%

Appendix C.49. Percent distribution of Robertson Creek Fall reported catch among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	4911	17 9%	0 8%	0 7%	11 5%	0 3%	8 1%	0 1%	0 5%	1 2%	10 9%	10 1%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	5 1%	32 6%
1980	4616	26 9%	7 0%	0 9%	8 1%	0 1%	7 0%	0 4%	0 0%	0 1%	8 3%	5 5%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	10 2%	3 0%	22 5%
1981	2219	29 7%	1 6%	0 8%	12 1%	0 5%	5 3%	0 7%	0 0%	0 6%	8 2%	5 8%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	12 6%	5 0%	16 5%
1982	3176	25 0%	3 4%	1 5%	13 5%	0 1%	5 8%	0 4%	0 0%	0 9%	7 5%	6 4%	0 0%	0 1%	0 0%	0 0%	0 6%	0 2%	0 0%	13 5%	6 0%	15 3%
1983	2537	36 0%	3 3%	0 6%	10 5%	0 3%	5 2%	0 0%	0 0%	0 3%	8 0%	3 1%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	17 5%	4 6%	10 4%
1984	1963	26 6%	4 0%	0 0%	14 6%	0 0%	6 9%	0 0%	0 0%	0 8%	3 0%	3 2%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	17 3%	15 9%	7 6%
1985	916	14 1%	5 8%	0 0%	17 8%	0 0%	2 1%	0 0%	0 0%	0 8%	0 5%	6 6%	0 0%	0 0%	0 0%	0 0%	2 0%	0 0%	0 0%	1 5%	17 7%	31 2%
1986	546	13 9%	4 6%	0 0%	8 1%	0 7%	4 4%	0 9%	0 0%	0 0%	1 1%	4 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 4%	25 6%	35 0%
1987	1399	6 5%	1 5%	0 6%	6 1%	0 5%	2 2%	0 1%	0 0%	0 5%	2 9%	3 5%	0 0%	0 0%	0 0%	0 0%	0 3%	0 1%	0 0%	0 0%	20 8%	54 3%
1988	2543	9 9%	2 1%	0 9%	6 6%	1 1%	4 1%	4 7%	0 0%	0 6%	1 2%	2 1%	0 0%	0 0%	0 0%	0 0%	0 3%	0 2%	0 0%	7 9%	13 9%	44 4%
1989	3995	6 0%	2 5%	0 4%	7 8%	1 0%	1 6%	1 7%	0 0%	0 8%	0 8%	2 3%	0 0%	0 0%	0 0%	0 0%	0 1%	0 1%	0 0%	19 3%	16 9%	36 9%
1990	6288	15 8%	1 1%	1 3%	7 4%	0 9%	6 3%	2 0%	0 0%	0 3%	2 0%	2 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	9 8%	8 8%	41 9%
1991	9369	16 9%	1 1%	3 0%	9 1%	0 8%	4 4%	1 1%	0 0%	0 3%	2 7%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	14 3%	12 6%	32 3%
1992	7822	13 7%	3 0%	1 7%	7 2%	1 5%	18 8%	2 1%	0 0%	0 1%	3 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 1%	0 1%	0 0%	0 4%	5 9%	41 1%
1993	5736	13 9%	1 0%	2 5%	7 1%	1 4%	13 8%	2 6%	0 0%	0 5%	2 0%	1 2%	0 0%	0 0%	0 0%	0 1%	0 0%	0 1%	0 0%	7 5%	13 1%	33 2%
1994	3141	15 8%	2 2%	3 7%	9 5%	1 1%	5 3%	4 3%	0 0%	0 4%	1 1%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	12 6%	17 0%	25 6%
1995	1181	15 2%	0 0%	4 0%	3 0%	1 9%	1 5%	3 1%	0 0%	1 4%	0 3%	0 4%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	7 1%	9 2%	52 7%
1996	684	5 6%	0 1%	1 9%	0 0%	2 8%	0 0%	0 0%	0 0%	1 5%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	87 4%
1997	2095	10 3%	3 1%	3 8%	4 2%	3 0%	0 1%	2 9%	0 0%	0 5%	1 8%	0 4%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	6 3%	20 3%	43 3%
1998	3193	16 0%	1 2%	4 9%	6 1%	2 8%	0 0%	4 5%	0 0%	0 6%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	4 1%	15 9%	43 8%
1999	1195	11 5%	0 4%	7 4%	5 4%	6 5%	0 0%	3 2%	0 0%	0 8%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 5%	17 7%	40 3%
2000	233	5 6%	0 0%	0 0%	0 0%	4 3%	0 0%	0 0%	0 0%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	88 4%
2001	910	3 0%	0 0%	1 6%	0 0%	0 4%	0 0%	2 1%	0 0%	2 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	89 2%
2002	1899	11 1%	0 3%	1 5%	3 5%	3 7%	0 4%	2 9%	0 0%	0 6%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	7 7%	15 1%	53 1%
2003	2751	12 5%	1 9%	3 0%	0 7%	4 3%	0 0%	1 7%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 8%	14 2%	52 8%
2004	4610	11 8%	7 5%	2 6%	2 4%	4 5%	0 2%	1 3%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	12 6%	12 6%	43 2%
2005	3048	13 6%	2 5%	3 6%	2 8%	9 8%	0 0%	1 7%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	31 7%	8 0%	25 7%
2006	2648	9 8%	1 9%	2 4%	2 3%	5 6%	0 0%	3 6%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	26 5%	10 9%	35 6%
2007	2054	15 6%	1 7%	3 4%	5 2%	6 4%	0 1%	4 1%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	28 0%	12 6%	22 1%
2008	1480	7 6%	0 1%	1 4%	2 3%	4 9%	0 0%	1 2%	0 0%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	21 7%	13 2%	45 8%
1979-2008	2972	14 7%	2 2%	2 0%	6 5%	2 4%	3 5%	1 8%	0 0%	0 8%	2 2%	2 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 1%	0 0%	10 2%	11 4%	40 1%
1979-1984	3237	27 0%	3 3%	0 7%	11 7%	0 2%	6 4%	0 3%	0 1%	0 6%	7 7%	5 7%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	11 8%	6 6%	17 5%
1985-1995	3903	13 1%	2 3%	1 6%	8 1%	1 0%	5 9%	2 1%	0 0%	0 5%	1 6%	2 4%	0 0%	0 0%	0 0%	0 0%	0 3%	0 2%	0 0%	7 4%	14 7%	39 0%
1996-1998	1991	10 6%	1 5%	3 5%	3 4%	2 9%	0 0%	2 5%	0 0%	0 9%	0 8%	0 1%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	3 4%	12 1%	58 2%
1999-2008	2083	10 2%	1 6%	2 7%	2 5%	5 0%	0 1%	2 2%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	14 3%	10 6%	49 6%

Appendix C.50. Percent distribution of Robertson Creek Fall total fishing mortalities among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	5637	19 9%	0 7%	0 7%	13 0%	0 3%	9 1%	0 1%	0 5%	1 1%	12 1%	9 2%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	4 7%	28 4%
1980	5006	27 5%	7 0%	1 0%	8 6%	0 1%	7 5%	0 4%	0 0%	0 1%	8 8%	5 5%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	9 6%	3 0%	20 7%
1981	2628	32 0%	1 5%	1 0%	13 2%	0 5%	5 9%	0 6%	0 0%	0 6%	9 0%	5 3%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	11 3%	4 6%	14 0%
1982	3690	28 0%	3 2%	1 6%	14 3%	0 1%	6 2%	0 4%	0 0%	0 8%	7 9%	5 9%	0 0%	0 1%	0 0%	0 0%	0 6%	0 2%	0 0%	12 1%	5 6%	13 1%
1983	2860	40 1%	3 0%	0 6%	10 2%	0 3%	5 0%	0 0%	0 0%	0 3%	7 7%	2 8%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	16 0%	4 4%	9 2%
1984	2176	30 3%	3 7%	0 0%	14 2%	0 0%	6 8%	0 0%	0 0%	0 7%	2 9%	2 9%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	15 9%	15 4%	6 8%
1985	1085	15 2%	13 9%	0 0%	16 6%	0 0%	1 9%	0 0%	0 0%	0 7%	0 5%	5 6%	0 0%	0 0%	0 0%	0 0%	1 8%	0 0%	0 0%	1 3%	16 0%	26 4%
1986	718	17 0%	12 4%	0 0%	8 8%	1 1%	4 5%	0 8%	0 0%	0 0%	1 3%	3 9%	0 0%	0 0%	0 0%	0 0%	0 0%	1 8%	0 0%	0 3%	21 6%	26 6%
1987	1593	9 9%	2 8%	1 1%	7 6%	0 6%	2 7%	0 2%	0 0%	0 5%	3 5%	3 3%	0 0%	0 0%	0 0%	0 0%	0 3%	0 1%	0 0%	0 0%	19 8%	47 6%
1988	2810	11 0%	3 7%	1 2%	7 4%	1 1%	4 7%	4 9%	0 0%	0 7%	1 4%	2 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 2%	0 0%	7 4%	13 6%	40 1%
1989	4769	10 4%	7 8%	0 5%	9 0%	1 0%	1 9%	1 6%	0 0%	0 8%	1 0%	2 2%	0 0%	0 0%	0 0%	0 0%	0 1%	0 1%	0 0%	17 1%	15 6%	30 9%
1990	7261	19 2%	2 3%	1 6%	9 0%	0 9%	6 8%	1 9%	0 0%	0 3%	2 4%	2 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	8 9%	8 2%	36 3%
1991	10503	19 7%	1 8%	3 2%	9 9%	0 8%	4 8%	1 0%	0 0%	0 3%	3 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	13 2%	12 1%	28 8%
1992	9840	15 2%	12 8%	1 6%	7 2%	1 4%	17 8%	1 8%	0 0%	0 1%	2 9%	1 1%	0 0%	0 0%	0 0%	0 0%	0 1%	0 1%	0 0%	0 3%	5 0%	32 7%
1993	6334	15 7%	2 0%	2 5%	7 6%	1 4%	14 6%	2 5%	0 0%	0 5%	2 1%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	7 0%	12 7%	30 1%
1994	3478	17 5%	5 3%	3 6%	9 3%	1 1%	5 2%	4 2%	0 0%	0 4%	1 0%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	11 6%	16 4%	23 1%
1995	1290	17 1%	0 0%	4 6%	3 6%	2 2%	1 9%	3 3%	0 0%	1 5%	0 4%	0 6%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	6 6%	9 9%	48 2%
1996	792	9 1%	0 1%	4 5%	2 8%	2 4%	0 9%	0 0%	0 0%	1 8%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	75 5%
1997	2445	13 2%	7 0%	4 3%	4 8%	3 4%	0 2%	2 7%	0 0%	0 6%	2 0%	0 5%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	5 7%	18 6%	37 1%
1998	3348	16 4%	1 7%	5 0%	6 2%	3 4%	0 0%	4 7%	0 0%	0 6%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	3 9%	16 2%	41 8%
1999	1262	12 3%	0 6%	7 5%	5 4%	7 3%	0 0%	3 3%	0 0%	0 8%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 3%	18 2%	38 1%
2000	243	6 6%	0 0%	0 0%	0 0%	6 6%	0 0%	0 0%	0 0%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	84 8%
2001	955	4 3%	0 0%	3 0%	0 0%	0 6%	0 0%	2 4%	0 0%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	85 0%
2002	2069	13 0%	0 4%	1 9%	3 9%	4 5%	0 4%	3 1%	0 0%	0 6%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	7 3%	15 9%	48 8%
2003	3005	13 9%	2 3%	3 5%	0 8%	5 3%	0 0%	2 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 4%	15 2%	48 3%
2004	5383	12 4%	13 3%	2 7%	2 5%	5 5%	0 1%	1 3%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	11 2%	12 6%	37 0%
2005	3351	14 7%	2 9%	4 0%	3 0%	11 9%	0 0%	1 8%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	29 5%	8 1%	23 4%
2006	2890	11 5%	3 2%	2 6%	2 6%	6 1%	0 0%	3 7%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	25 2%	11 0%	32 6%
2007	2295	17 3%	2 4%	4 0%	5 3%	7 8%	0 1%	4 3%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	25 7%	12 5%	19 8%
2008	1603	10 5%	0 2%	1 6%	2 7%	5 2%	0 0%	1 2%	0 0%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	21 0%	13 3%	42 3%
1979-2008	3377	16 7%	3 9%	2 3%	7 0%	2 8%	3 6%	1 8%	0 0%	0 8%	2 4%	1 9%	0 0%	0 0%	0 0%	0 0%	0 2%	0 1%	0 0%	9 4%	11 1%	35 9%
1979-1984	3666	29 6%	3 2%	0 8%	12 3%	0 2%	6 7%	0 3%	0 1%	0 6%	8 1%	5 3%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	10 8%	6 3%	15 4%
1985-1995	4516	15 3%	5 9%	1 8%	8 7%	1 1%	6 1%	2 0%	0 0%	0 5%	1 8%	2 2%	0 0%	0 0%	0 0%	0 0%	0 3%	0 2%	0 0%	6 7%	13 7%	33 7%
1996-1998	2195	12 9%	2 9%	4 6%	4 6%	3 0%	0 3%	2 4%	0 0%	1 0%	0 9%	0 2%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	3 2%	12 3%	51 5%
1999-2008	2306	11 6%	2 5%	3 1%	2 6%	6 1%	0 1%	2 3%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	13 5%	10 9%	46 0%

Appendix C.51. Percent distribution of Samish Fall Fingerling reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	1777	0.0%	0.0%	0.0%	0.2%	0.3%	6.8%	1.9%	0.9%	16.3%	0.2%	3.7%	0.0%	7.4%	0.0%	0.0%	36.2%	9.7%	0.0%	0.0%	0.0%	16.5%
1990	2346	2.1%	0.0%	0.0%	0.5%	0.0%	18.8%	2.0%	3.4%	9.8%	0.1%	1.5%	0.0%	9.1%	0.0%	0.1%	29.2%	7.4%	0.0%	0.3%	0.0%	15.6%
1991	946	0.0%	0.0%	0.0%	0.0%	0.0%	13.3%	3.2%	1.7%	9.6%	0.1%	3.0%	0.0%	8.9%	0.0%	0.7%	21.6%	8.8%	0.0%	1.5%	1.3%	26.4%
1992	577	0.0%	0.0%	0.0%	0.0%	0.5%	11.4%	0.9%	2.1%	12.5%	0.0%	2.3%	0.0%	10.2%	0.0%	0.7%	15.6%	15.8%	0.0%	0.0%	0.7%	27.4%
1993	1041	0.0%	0.0%	0.0%	0.3%	0.3%	12.1%	8.5%	2.8%	16.2%	0.2%	2.8%	0.0%	3.9%	0.0%	0.1%	16.5%	12.6%	0.0%	0.0%	0.0%	23.6%
1994	939	0.2%	0.0%	0.0%	0.4%	0.0%	12.0%	5.4%	1.2%	12.6%	0.0%	2.3%	0.0%	2.2%	0.0%	0.0%	38.4%	3.5%	0.0%	0.0%	0.4%	21.2%
1995	685	0.3%	0.0%	0.0%	0.0%	0.0%	5.8%	3.4%	0.0%	5.1%	0.0%	1.0%	0.0%	3.4%	0.0%	0.0%	27.2%	12.7%	0.0%	0.0%	2.3%	38.8%
1996	1110	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	10.7%	0.0%	0.4%	0.0%	1.9%	0.0%	0.0%	34.0%	9.6%	0.0%	0.0%	14.5%	28.1%
1997	1317	0.5%	0.2%	0.0%	0.3%	0.3%	2.3%	3.6%	0.0%	8.0%	0.7%	0.8%	0.0%	0.9%	0.0%	0.1%	33.8%	9.2%	0.0%	0.0%	0.3%	39.2%
1998	696	3.3%	0.0%	0.0%	0.0%	0.0%	1.6%	3.2%	0.0%	10.9%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	43.6%	3.4%	0.0%	0.0%	0.6%	32.8%
1999	248	3.6%	0.0%	0.0%	2.0%	3.2%	1.6%	10.1%	0.0%	10.9%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	38.3%	3.6%	0.0%	0.0%	0.0%	25.0%
2000	269	0.0%	0.0%	0.0%	0.0%	0.0%	12.3%	10.4%	0.0%	6.3%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	36.8%	1.5%	0.0%	0.0%	0.0%	32.3%
2001	1522	0.0%	0.3%	0.0%	0.0%	0.1%	4.7%	5.2%	0.0%	7.6%	0.0%	0.3%	0.0%	2.4%	0.0%	0.1%	39.4%	4.0%	0.0%	0.5%	0.0%	35.5%
2002	1532	0.8%	0.0%	0.0%	0.7%	0.0%	8.7%	6.7%	0.0%	7.0%	0.0%	0.0%	0.0%	2.8%	0.0%	0.6%	36.4%	4.4%	0.0%	0.3%	0.0%	31.5%
2003	730	0.8%	0.0%	0.0%	0.0%	0.0%	13.7%	2.6%	0.0%	5.1%	0.0%	0.3%	0.0%	6.2%	0.0%	0.5%	38.6%	2.2%	0.0%	0.3%	0.0%	29.7%
2004	494	0.4%	0.0%	0.0%	0.0%	0.0%	7.7%	6.3%	0.0%	4.9%	0.0%	0.0%	0.0%	10.5%	0.0%	0.4%	30.0%	5.7%	0.0%	1.8%	0.0%	32.4%
2005	637	0.3%	0.2%	0.0%	0.3%	0.0%	11.3%	7.5%	0.0%	12.7%	0.0%	0.0%	0.0%	7.1%	0.0%	0.8%	33.8%	3.8%	0.0%	0.9%	0.0%	21.4%
2006	1440	0.8%	0.1%	0.0%	0.1%	0.0%	8.3%	5.3%	0.0%	5.5%	0.0%	0.0%	0.0%	6.2%	0.0%	1.2%	51.0%	6.0%	0.0%	0.5%	0.0%	15.0%
2007	1774	0.5%	0.0%	0.0%	0.0%	0.0%	9.5%	4.5%	0.0%	5.9%	0.0%	0.0%	0.0%	2.7%	0.0%	0.4%	30.9%	3.3%	0.0%	0.5%	18.5%	23.3%
2008	1589	0.2%	0.0%	0.0%	0.0%	0.0%	6.2%	4.7%	0.0%	5.4%	0.0%	0.0%	0.0%	3.8%	0.0%	0.3%	44.0%	7.9%	0.0%	0.3%	0.0%	27.2%
1979-2008	1084	0.7%	0.0%	0.0%	0.2%	0.2%	8.4%	4.8%	0.6%	9.1%	0.1%	0.9%	0.0%	4.6%	0.0%	0.3%	33.8%	6.8%	0.0%	0.3%	1.9%	27.1%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	1187	0.4%	0.0%	0.0%	0.2%	0.2%	11.5%	3.6%	1.7%	11.7%	0.1%	2.4%	0.0%	6.5%	0.0%	0.2%	26.4%	10.1%	0.0%	0.3%	0.7%	24.2%
1996-1998	1042	1.3%	0.1%	0.0%	0.1%	0.1%	1.3%	2.5%	0.0%	9.9%	0.2%	0.4%	0.0%	1.2%	0.0%	0.0%	37.1%	7.4%	0.0%	0.0%	5.1%	33.4%
1999-2008	1024	0.8%	0.0%	0.0%	0.3%	0.3%	8.4%	6.3%	0.0%	7.1%	0.0%	0.1%	0.0%	4.4%	0.0%	0.4%	37.9%	4.2%	0.0%	0.5%	1.8%	27.3%

Appendix C.52. Percent distribution of Samish Fall Fingerling total fishing mortalities among fisheries and escapement.

Catch	Estimated # of	AABM							ISBM														
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	2042	0.0%	0.0%	0.0%	0.2%	0.2%	9.1%	1.8%	1.3%	17.1%	0.2%	3.3%	0.0%	8.0%	0.0%	0.0%	33.3%	11.0%	0.0%	0.0%	0.0%	14.3%
1990	2548	2.2%	0.0%	0.0%	0.5%	0.0%	20.2%	2.0%	3.5%	10.2%	0.1%	1.5%	0.0%	9.4%	0.0%	0.1%	27.4%	8.1%	0.0%	0.3%	0.0%	14.4%
1991	1035	0.0%	0.0%	0.0%	0.0%	0.0%	14.4%	3.2%	1.9%	10.3%	0.1%	2.9%	0.0%	9.4%	0.0%	0.8%	20.3%	10.0%	0.0%	1.4%	1.3%	24.2%
1992	724	0.0%	0.0%	0.0%	0.0%	0.6%	11.6%	0.8%	2.5%	12.8%	0.0%	1.9%	0.0%	9.9%	0.0%	0.7%	14.2%	22.4%	0.0%	0.0%	0.7%	21.8%
1993	1222	0.0%	0.0%	0.0%	0.3%	0.3%	13.8%	8.0%	3.8%	17.9%	0.2%	2.5%	0.0%	4.1%	0.0%	0.1%	15.3%	13.5%	0.0%	0.0%	0.0%	20.1%
1994	1034	0.5%	0.0%	0.0%	0.5%	0.0%	13.2%	5.5%	1.4%	13.7%	0.0%	2.3%	0.0%	2.1%	0.0%	0.0%	36.9%	4.2%	0.0%	0.0%	0.4%	19.2%
1995	823	0.2%	0.0%	0.0%	0.0%	0.0%	7.3%	3.3%	0.0%	5.3%	0.0%	1.6%	0.0%	3.0%	0.0%	0.0%	24.3%	20.4%	0.0%	0.0%	2.2%	32.3%
1996	1362	0.0%	0.1%	0.0%	0.1%	0.0%	1.0%	0.7%	0.0%	11.4%	0.0%	0.5%	0.0%	1.7%	0.0%	0.0%	32.6%	14.3%	0.0%	0.0%	14.8%	22.9%
1997	1443	0.6%	0.4%	0.0%	0.3%	0.3%	2.8%	3.5%	0.0%	9.1%	0.8%	1.0%	0.0%	1.0%	0.0%	0.1%	32.8%	11.0%	0.0%	0.0%	0.3%	35.8%
1998	735	3.4%	0.0%	0.0%	0.0%	0.0%	1.5%	3.3%	0.0%	11.8%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	42.6%	4.9%	0.0%	0.0%	0.5%	31.2%
1999	278	4.3%	0.0%	0.0%	2.2%	3.6%	1.4%	10.4%	0.0%	12.2%	0.0%	0.0%	0.0%	1.8%	0.0%	0.0%	36.0%	5.8%	0.0%	0.0%	0.0%	22.3%
2000	341	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%	10.3%	0.0%	6.7%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	39.3%	6.7%	0.0%	0.0%	0.0%	25.5%
2001	1718	0.0%	0.5%	0.0%	0.0%	0.1%	4.5%	5.4%	0.0%	8.7%	0.0%	0.6%	0.0%	2.7%	0.0%	0.1%	37.9%	7.8%	0.0%	0.4%	0.0%	31.5%
2002	1628	0.9%	0.0%	0.0%	0.7%	0.0%	8.5%	7.3%	0.0%	7.6%	0.0%	0.0%	0.0%	2.9%	0.0%	0.6%	35.4%	6.1%	0.0%	0.3%	0.0%	29.7%
2003	768	0.9%	0.0%	0.0%	0.0%	0.0%	13.8%	3.1%	0.0%	5.7%	0.0%	0.3%	0.0%	6.6%	0.0%	0.5%	37.4%	3.1%	0.0%	0.3%	0.0%	28.3%
2004	554	0.5%	0.0%	0.0%	0.0%	0.0%	7.4%	6.7%	0.0%	5.4%	0.0%	0.0%	0.0%	11.9%	0.0%	0.4%	28.5%	8.7%	0.0%	1.6%	0.0%	28.9%
2005	740	0.4%	0.1%	0.0%	0.4%	0.0%	10.9%	8.0%	0.0%	14.1%	0.0%	0.0%	0.0%	7.6%	0.0%	0.8%	31.4%	7.2%	0.0%	0.8%	0.0%	18.4%
2006	1598	0.9%	0.1%	0.0%	0.2%	0.0%	7.9%	5.6%	0.0%	6.3%	0.0%	0.0%	0.0%	6.8%	0.0%	1.2%	49.4%	7.6%	0.0%	0.4%	0.0%	13.5%
2007	2058	0.6%	0.0%	0.0%	0.0%	0.0%	9.3%	4.7%	0.0%	6.4%	0.0%	0.0%	0.0%	2.8%	0.0%	0.4%	29.4%	7.8%	0.0%	0.4%	18.1%	20.1%
2008	1733	0.3%	0.0%	0.0%	0.0%	0.0%	5.9%	4.8%	0.0%	6.6%	0.0%	0.0%	0.0%	4.3%	0.0%	0.3%	43.3%	9.2%	0.0%	0.3%	0.0%	24.9%
1979-2008	1219	0.8%	0.1%	0.0%	0.3%	0.3%	8.8%	4.9%	0.7%	10.0%	0.1%	0.9%	0.0%	4.9%	0.0%	0.3%	32.4%	9.5%	0.0%	0.3%	1.9%	24.0%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	1347	0.4%	0.0%	0.0%	0.2%	0.2%	12.8%	3.5%	2.0%	12.5%	0.1%	2.3%	0.0%	6.6%	0.0%	0.2%	24.5%	12.8%	0.0%	0.2%	0.6%	20.9%
1996-1998	1180	1.3%	0.2%	0.0%	0.1%	0.1%	1.7%	2.5%	0.0%	10.8%	0.3%	0.5%	0.0%	1.2%	0.0%	0.0%	36.0%	10.1%	0.0%	0.0%	5.2%	29.9%
1999-2008	1142	0.9%	0.1%	0.0%	0.3%	0.4%	8.1%	6.6%	0.0%	8.0%	0.0%	0.1%	0.0%	4.8%	0.0%	0.4%	36.8%	7.0%	0.0%	0.5%	1.8%	24.3%

Appendix C.53. Percent distribution of Shuswap River Summer reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	597	11.7%	0.0%	1.7%	25.0%	5.0%	11.6%	0.0%	0.5%	1.3%	14.4%	15.1%	0.0%	0.0%	0.0%	0.0%	5.2%	0.0%	0.0%	0.0%	0.0%	8.5%
1995	291	17.9%	0.0%	5.5%	13.4%	11.7%	4.1%	0.0%	0.0%	2.1%	1.0%	8.9%	0.0%	0.0%	0.0%	0.0%	5.8%	0.0%	0.0%	0.3%	1.0%	28.2%
1996	603	15.4%	0.0%	0.0%	0.0%	3.6%	0.0%	1.2%	0.0%	3.0%	0.0%	8.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	1.3%	66.5%
1997	341	17.9%	0.9%	0.0%	12.0%	5.9%	0.6%	0.0%	0.0%	7.0%	1.2%	32.8%	0.0%	0.0%	0.0%	0.0%	4.1%	0.0%	0.0%	0.0%	0.0%	17.6%
1998	670	20.6%	0.1%	8.1%	8.8%	14.2%	0.0%	0.7%	0.0%	5.8%	0.0%	7.9%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.6%	0.7%	31.5%
1999	352	27.8%	0.0%	12.8%	1.4%	13.1%	0.0%	0.0%	0.0%	5.7%	0.0%	10.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	27.6%
2000	649	9.4%	0.0%	6.6%	0.0%	3.5%	0.0%	0.0%	0.0%	3.4%	0.0%	6.9%	0.0%	0.0%	0.0%	0.5%	0.2%	0.0%	0.0%	0.2%	1.4%	68.0%
2001	1092	5.9%	0.6%	0.3%	0.0%	4.0%	0.0%	0.0%	0.1%	4.3%	0.9%	0.7%	0.0%	0.1%	0.0%	0.0%	0.2%	0.0%	0.0%	0.5%	5.0%	77.3%
2002	1407	16.6%	0.0%	3.1%	11.7%	5.8%	1.6%	0.0%	0.0%	2.6%	0.1%	8.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.5%	48.9%
2003	1528	10.2%	0.7%	2.0%	8.2%	5.2%	0.0%	0.3%	0.0%	5.2%	0.8%	4.3%	0.0%	0.4%	0.0%	0.0%	0.6%	0.0%	0.0%	0.7%	1.8%	59.6%
2004	1034	16.5%	0.0%	1.9%	8.5%	8.3%	0.9%	0.0%	0.0%	4.1%	0.0%	12.6%	0.0%	0.3%	0.0%	0.0%	1.2%	0.0%	0.0%	0.3%	2.1%	43.3%
2005	748	13.4%	0.0%	0.8%	11.0%	15.0%	0.4%	3.1%	0.0%	4.0%	0.0%	7.5%	0.0%	0.3%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	3.9%	40.4%
2006	1224	11.7%	0.0%	2.0%	13.0%	12.0%	0.3%	0.9%	0.0%	6.6%	0.0%	6.9%	0.0%	0.2%	0.0%	0.0%	0.8%	0.0%	0.0%	0.2%	3.0%	42.2%
2007	439	5.7%	0.2%	3.0%	2.5%	5.9%	0.0%	0.7%	0.0%	3.2%	0.0%	10.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	5.5%	62.2%
2008	1554	6.4%	0.0%	0.3%	6.3%	7.7%	0.0%	1.6%	0.0%	4.4%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	3.2%	68.1%
1979-2008	835	13.8%	0.2%	3.2%	8.1%	8.1%	1.3%	0.6%	0.0%	4.2%	1.2%	9.6%	0.0%	0.1%	0.0%	0.0%	1.3%	0.0%	0.0%	0.3%	2.0%	46.0%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	444	14.8%	0.0%	3.6%	19.2%	8.4%	7.8%	0.0%	0.3%	1.7%	7.7%	12.0%	0.0%	0.0%	0.0%	0.0%	5.5%	0.0%	0.0%	0.2%	0.5%	18.4%
1996-1998	538	18.0%	0.3%	2.7%	6.9%	7.9%	0.2%	0.6%	0.0%	5.3%	0.4%	16.5%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	0.3%	0.7%	38.5%
1999-2008	1003	12.4%	0.2%	3.3%	6.3%	8.1%	0.3%	0.7%	0.0%	4.4%	0.2%	7.0%	0.0%	0.1%	0.0%	0.0%	0.3%	0.0%	0.0%	0.4%	2.7%	53.8%

Appendix C.54. Percent distribution of Shuswap River Summer total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport		
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
1994	654	14.5%	0.0%	1.8%	24.3%	5.4%	11.2%	0.0%	0.5%	1.5%	13.8%	14.4%	0.0%	0.0%	0.0%	0.0%	4.9%	0.0%	0.0%	0.0%	0.0%		7.8%
1995	385	22.9%	0.0%	5.2%	15.6%	10.9%	4.7%	0.0%	0.0%	2.1%	1.0%	10.1%	0.0%	0.0%	0.0%	0.0%	5.2%	0.0%	0.0%	0.3%	0.8%		21.3%
1996	646	18.6%	0.0%	0.0%	0.5%	3.6%	0.3%	1.2%	0.0%	3.4%	0.0%	8.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	1.4%		62.1%
1997	415	20.2%	1.4%	0.0%	12.3%	6.5%	0.7%	0.0%	0.0%	7.2%	1.2%	31.8%	0.0%	0.0%	0.0%	0.0%	4.1%	0.0%	0.0%	0.0%	0.0%		14.5%
1998	771	21.0%	0.1%	8.7%	8.9%	16.5%	0.0%	0.8%	0.0%	6.1%	0.0%	8.4%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.5%	0.6%		27.4%
1999	410	32.2%	0.0%	13.2%	1.5%	13.4%	0.0%	0.0%	0.0%	5.9%	0.0%	9.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%		23.7%
2000	728	11.0%	0.0%	9.9%	0.0%	5.2%	0.0%	0.0%	0.0%	3.8%	0.0%	7.3%	0.0%	0.0%	0.0%	0.5%	0.1%	0.0%	0.0%	0.1%	1.4%		60.6%
2001	1190	8.0%	1.0%	0.3%	0.0%	5.0%	0.0%	0.0%	0.1%	5.2%	2.4%	1.3%	0.0%	0.1%	0.0%	0.0%	0.2%	0.0%	0.0%	0.5%	5.0%		70.9%
2002	1538	18.3%	0.0%	3.4%	12.9%	7.0%	1.5%	0.0%	0.0%	2.9%	0.1%	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.5%		44.7%
2003	1642	11.2%	1.0%	2.3%	9.0%	6.3%	0.0%	0.3%	0.0%	5.8%	1.1%	4.0%	0.0%	0.4%	0.0%	0.0%	0.7%	0.0%	0.0%	0.7%	1.8%		55.5%
2004	1156	17.9%	0.0%	2.3%	9.3%	11.1%	0.8%	0.0%	0.0%	4.4%	0.0%	11.5%	0.0%	0.3%	0.0%	0.0%	1.3%	0.0%	0.0%	0.3%	2.1%		38.8%
2005	831	14.6%	0.0%	0.8%	12.3%	17.0%	0.4%	3.1%	0.0%	4.3%	0.0%	6.9%	0.0%	0.2%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	3.7%		36.3%
2006	1300	12.0%	0.0%	2.1%	13.4%	13.5%	0.3%	1.0%	0.0%	7.0%	0.0%	6.5%	0.0%	0.2%	0.0%	0.0%	0.8%	0.0%	0.0%	0.2%	3.1%		39.8%
2007	567	6.9%	0.2%	12.3%	2.8%	10.9%	0.0%	0.9%	0.0%	3.7%	0.0%	9.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	4.8%		48.1%
2008	1717	9.0%	0.0%	0.5%	7.7%	9.0%	0.0%	1.7%	0.0%	5.4%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	3.1%		61.7%
1979-2008	930	15.9%	0.2%	4.2%	8.7%	9.4%	1.3%	0.6%	0.0%	4.6%	1.3%	9.2%	0.0%	0.1%	0.0%	0.0%	1.2%	0.0%	0.0%	0.3%	1.9%		40.9%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%
1985-1995	520	18.7%	0.0%	3.5%	19.9%	8.1%	7.9%	0.0%	0.2%	1.8%	7.4%	12.3%	0.0%	0.0%	0.0%	0.0%	5.0%	0.0%	0.0%	0.1%	0.4%		14.5%
1996-1998	611	19.9%	0.5%	2.9%	7.2%	8.8%	0.3%	0.7%	0.0%	5.6%	0.4%	16.4%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	0.2%	0.7%		34.6%
1999-2008	1108	14.1%	0.2%	4.7%	6.9%	9.9%	0.3%	0.7%	0.0%	4.8%	0.4%	6.5%	0.0%	0.1%	0.0%	0.1%	0.3%	0.0%	0.0%	0.3%	2.8%		48.0%

Appendix C.55. Percent distribution of Skagit Spring Fingerling reported catch among fisheries and escapement.

Catch	Estimated # of	AABM							ISBM													
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1997	919	1 0%	0 0%	0 0%	0 4%	0 8%	1 5%	5 4%	0 0%	8 6%	0 5%	1 6%	0 0%	0 0%	0 0%	0 0%	0 9%	7 2%	0 0%	0 5%	0 0%	71 5%
1998	675	1 9%	0 0%	0 0%	0 0%	0 7%	0 0%	5 0%	0 0%	9 3%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 4%	2 5%	0 0%	1 2%	0 0%	78 2%
1999	1720	0 5%	0 6%	0 0%	0 3%	0 7%	2 0%	6 0%	0 0%	4 6%	0 0%	0 1%	0 0%	0 3%	0 0%	0 0%	0 5%	1 6%	0 0%	1 0%	0 0%	81 9%
2000	1109	1 5%	0 0%	0 4%	0 0%	0 5%	6 2%	6 9%	0 0%	9 1%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 1%	2 4%	0 0%	0 1%	0 0%	72 8%
2001	1813	1 3%	0 2%	0 3%	0 2%	0 8%	5 6%	3 8%	0 0%	5 4%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 2%	4 3%	0 0%	0 5%	0 0%	77 2%
2002	1749	2 5%	0 0%	0 5%	0 5%	0 7%	6 7%	4 6%	0 0%	6 8%	0 0%	0 1%	0 0%	0 3%	0 0%	0 1%	0 0%	2 5%	0 0%	0 6%	0 0%	74 2%
2003	673	2 2%	0 0%	0 9%	1 2%	0 7%	18 3%	0 7%	0 0%	5 3%	0 0%	0 1%	0 0%	1 3%	0 0%	0 0%	0 1%	1 2%	0 0%	0 7%	0 0%	67 0%
2004	1101	0 0%	0 0%	0 0%	0 5%	0 0%	11 7%	2 6%	0 0%	6 9%	0 0%	0 0%	0 0%	2 3%	0 0%	0 0%	0 0%	1 6%	0 0%	1 4%	0 0%	73 0%
2005	1234	1 3%	0 1%	0 0%	0 0%	1 4%	11 0%	5 3%	0 0%	5 4%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 3%	3 7%	70 7%
2006	1642	0 3%	0 1%	0 2%	0 2%	0 5%	6 6%	2 9%	0 0%	6 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 5%	2 6%	0 0%	1 0%	15 3%	63 7%
2007	2452	0 3%	0 0%	0 0%	0 0%	0 0%	9 1%	6 4%	0 0%	6 6%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 3%	2 9%	0 0%	1 3%	19 2%	53 0%
2008	1232	0 4%	0 0%	0 0%	0 0%	0 3%	4 4%	7 2%	0 0%	5 4%	0 0%	0 2%	0 0%	0 8%	0 0%	0 0%	1 4%	5 5%	0 0%	15 9%	0 0%	58 4%
1979-2008	1360	1 1%	0 1%	0 2%	0 3%	0 6%	6 9%	4 8%	0 0%	6 6%	0 0%	0 3%	0 0%	0 5%	0 0%	0 0%	0 4%	2 9%	0 0%	2 0%	3 2%	70 1%
1979-1984	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1996-1998	797	1 5%	0 0%	0 0%	0 2%	0 8%	0 8%	5 2%	0 0%	9 0%	0 3%	1 1%	0 0%	0 0%	0 0%	0 0%	0 7%	4 9%	0 0%	0 9%	0 0%	74 9%
1999-2008	1472	1 0%	0 1%	0 2%	0 3%	0 6%	8 2%	4 7%	0 0%	6 2%	0 0%	0 1%	0 0%	0 6%	0 0%	0 0%	0 3%	2 5%	0 0%	2 3%	3 8%	69 2%

Appendix C.56. Percent distribution of Skagit Spring Fingerling total fishing mortalities among fisheries and escapement.

	Estimated	AABM							ISBM														
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1997	986	1.2%	0.0%	0.0%	0.4%	0.9%	1.9%	5.8%	0.0%	9.7%	0.5%	2.7%	0.0%	0.0%	0.0%	0.0%	0.8%	8.8%	0.0%	0.5%	0.0%	66.6%
1998	729	2.1%	0.0%	0.0%	0.0%	1.1%	0.0%	5.5%	0.0%	10.7%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.4%	6.0%	0.0%	1.1%	0.0%	72.4%
1999	1805	0.9%	1.0%	0.0%	0.3%	0.8%	2.0%	6.4%	0.0%	5.7%	0.0%	0.1%	0.0%	0.4%	0.0%	0.0%	0.5%	2.8%	0.0%	1.0%	0.0%	78.1%
2000	1210	2.0%	0.0%	0.6%	0.0%	0.6%	6.6%	7.4%	0.0%	10.7%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.1%	5.0%	0.0%	0.1%	0.0%	66.7%
2001	1985	1.7%	0.3%	0.4%	0.3%	0.9%	5.4%	4.0%	0.0%	6.2%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	9.5%	0.0%	0.5%	0.0%	70.5%
2002	1829	2.8%	0.0%	0.5%	0.5%	0.9%	6.7%	5.1%	0.0%	7.7%	0.0%	0.1%	0.0%	0.3%	0.0%	0.1%	0.0%	3.7%	0.0%	0.5%	0.0%	70.9%
2003	701	2.4%	0.0%	1.0%	1.3%	0.9%	18.8%	0.9%	0.0%	6.1%	0.0%	0.1%	0.0%	1.4%	0.0%	0.0%	0.1%	1.9%	0.0%	0.7%	0.0%	64.3%
2004	1159	0.0%	0.0%	0.0%	0.5%	0.0%	12.2%	3.0%	0.0%	8.2%	0.0%	0.0%	0.0%	2.8%	0.0%	0.0%	0.0%	2.7%	0.0%	1.3%	0.0%	69.4%
2005	1302	1.6%	0.2%	0.0%	0.0%	1.8%	11.3%	6.1%	0.0%	6.5%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.3%	4.1%	67.0%
2006	1760	0.5%	0.1%	0.3%	0.2%	0.6%	6.8%	3.2%	0.0%	7.1%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.5%	4.0%	0.0%	1.0%	16.2%	59.4%
2007	2613	0.4%	0.1%	0.0%	0.0%	0.0%	8.8%	6.7%	0.0%	7.5%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.3%	3.6%	0.0%	1.3%	20.7%	49.8%
2008	1285	0.4%	0.0%	0.0%	0.0%	0.4%	4.4%	7.9%	0.0%	5.9%	0.0%	0.3%	0.0%	0.9%	0.0%	0.0%	1.3%	6.9%	0.0%	15.6%	0.0%	56.0%
1979-2008	1447	1.3%	0.1%	0.2%	0.3%	0.7%	7.1%	5.2%	0.0%	7.7%	0.0%	0.4%	0.0%	0.6%	0.0%	0.0%	0.3%	4.6%	0.0%	2.0%	3.4%	65.9%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1996-1998	868	1.6%	0.0%	0.0%	0.2%	1.0%	1.0%	5.6%	0.0%	10.2%	0.3%	1.7%	0.0%	0.0%	0.0%	0.0%	0.6%	7.4%	0.0%	0.8%	0.0%	69.5%
1999-2008	1565	1.3%	0.2%	0.3%	0.3%	0.7%	8.3%	5.1%	0.0%	7.2%	0.0%	0.1%	0.0%	0.7%	0.0%	0.0%	0.3%	4.1%	0.0%	2.2%	4.1%	65.2%

Appendix C.57. Percent distribution of Skagit Spring Yearling reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	120	0.0%	0.0%	0.0%	0.0%	0.0%	6.7%	0.0%	0.0%	29.2%	0.0%	26.7%	0.0%	0.0%	0.0%	0.0%	10.0%	15.8%	0.0%	0.0%	0.0%	11.7%
1986	211	1.4%	0.0%	0.0%	0.0%	0.0%	6.2%	5.7%	6.2%	35.5%	4.3%	9.5%	0.0%	0.0%	0.0%	0.0%	3.3%	7.6%	0.0%	0.0%	0.0%	20.4%
1987	108	0.0%	0.0%	0.0%	4.6%	0.0%	3.7%	0.0%	0.0%	10.2%	0.0%	12.0%	0.0%	1.9%	0.0%	0.0%	24.1%	20.4%	0.0%	0.0%	0.0%	23.1%
1988	514	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	9.5%	0.4%	14.4%	0.0%	13.4%	0.0%	1.8%	0.0%	0.0%	21.4%	14.4%	0.0%	0.0%	0.0%	23.0%
1989	760	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	1.8%	0.0%	17.5%	0.8%	3.4%	0.0%	4.3%	0.0%	0.0%	12.4%	8.4%	0.0%	18.0%	0.0%	29.9%
1990	681	0.0%	0.0%	0.0%	0.0%	1.0%	4.8%	8.7%	3.1%	11.0%	0.4%	5.9%	0.0%	3.4%	0.0%	0.0%	14.1%	22.5%	0.0%	1.9%	0.0%	23.2%
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1997	461	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	12.8%	0.0%	19.1%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	1.3%	20.4%	0.0%	1.1%	0.0%	41.2%
1998	1119	0.5%	0.0%	0.0%	0.0%	2.9%	1.3%	10.2%	0.0%	8.8%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	2.4%	16.7%	0.0%	0.7%	0.0%	56.4%
1999	2372	0.5%	0.0%	0.0%	0.0%	0.3%	4.8%	4.3%	0.0%	7.4%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.1%	8.7%	0.0%	1.2%	0.0%	72.4%
2000	522	0.8%	0.0%	0.0%	0.0%	0.4%	7.1%	3.1%	0.0%	15.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	15.5%	0.0%	0.6%	0.0%	56.5%
2001	251	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%	2.4%	0.0%	12.0%	0.0%	0.0%	0.0%	3.2%	0.0%	0.0%	0.0%	10.8%	0.0%	2.0%	0.0%	66.1%
2002	272	1.1%	0.0%	0.0%	0.0%	0.0%	1.1%	14.7%	0.0%	14.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	8.5%	0.0%	0.7%	0.0%	59.2%
2003	891	0.0%	0.0%	0.0%	0.9%	0.3%	20.3%	3.9%	0.0%	9.4%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.6%	7.5%	0.0%	0.2%	0.0%	56.7%
2004	1584	0.2%	0.0%	0.0%	0.0%	0.4%	13.0%	3.7%	0.0%	5.4%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.2%	4.2%	0.0%	0.8%	0.1%	71.3%
2005	1156	1.0%	0.0%	0.0%	0.2%	0.0%	7.6%	5.3%	0.0%	10.4%	0.0%	0.3%	0.0%	0.3%	0.0%	0.3%	0.1%	6.4%	0.0%	1.0%	6.5%	60.8%
2006	659	0.5%	0.0%	0.0%	0.0%	0.0%	9.6%	6.4%	0.0%	11.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.6%	3.5%	0.0%	1.2%	27.5%	39.0%
2007	746	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%	8.2%	0.0%	4.4%	0.0%	0.0%	0.0%	0.5%	0.0%	0.3%	1.1%	14.5%	0.0%	0.4%	23.6%	44.4%
2008	547	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	4.6%	0.0%	7.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	10.1%	0.0%	15.9%	0.0%	59.2%
1979-2008	721	0.3%	0.0%	0.0%	0.3%	0.3%	5.7%	5.8%	0.5%	13.5%	0.3%	4.1%	0.0%	0.9%	0.0%	0.1%	5.2%	12.0%	0.0%	2.5%	3.2%	45.2%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	399	0.2%	0.0%	0.0%	0.8%	0.2%	4.4%	4.3%	1.6%	19.6%	0.9%	11.8%	0.0%	1.9%	0.0%	0.0%	14.2%	14.8%	0.0%	3.3%	0.0%	21.9%
1996-1998	790	0.3%	0.0%	0.0%	0.0%	1.4%	1.5%	11.5%	0.0%	14.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	1.9%	18.6%	0.0%	0.9%	0.0%	48.8%
1999-2008	900	0.4%	0.0%	0.0%	0.1%	0.1%	7.2%	5.6%	0.0%	9.7%	0.0%	0.0%	0.0%	0.5%	0.0%	0.1%	0.5%	9.0%	0.0%	2.4%	5.8%	58.6%

Appendix C.58. Percent distribution of Skagit Spring Yearling total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	130	0.0%	0.0%	0.0%	0.0%	0.0%	6.9%	0.0%	0.0%	29.2%	0.0%	25.4%	0.0%	0.0%	0.0%	0.0%	9.2%	18.5%	0.0%	0.0%	0.0%	10.8%
1986	225	1.3%	0.0%	0.0%	0.0%	0.0%	6.2%	5.8%	6.2%	35.6%	4.0%	9.3%	0.0%	0.0%	0.0%	0.0%	3.1%	9.3%	0.0%	0.0%	0.0%	19.1%
1987	163	0.0%	0.0%	0.0%	4.9%	0.0%	3.1%	0.0%	0.0%	7.4%	0.0%	9.2%	0.0%	1.2%	0.0%	0.0%	19.0%	39.9%	0.0%	0.0%	0.0%	15.3%
1988	585	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	9.2%	0.5%	16.9%	0.0%	12.5%	0.0%	2.1%	0.0%	0.0%	20.2%	16.1%	0.0%	0.0%	0.0%	20.2%
1989	844	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	1.9%	0.0%	19.5%	0.8%	3.4%	0.0%	4.7%	0.0%	0.0%	11.5%	10.4%	0.0%	16.7%	0.0%	26.9%
1990	735	0.0%	0.0%	0.0%	0.0%	1.1%	5.0%	8.6%	3.3%	11.4%	0.4%	5.7%	0.0%	3.7%	0.0%	0.0%	13.5%	24.1%	0.0%	1.8%	0.0%	21.5%
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1997	629	0.3%	0.0%	0.0%	0.0%	0.5%	3.5%	11.3%	0.0%	18.8%	0.0%	3.5%	0.0%	0.0%	0.0%	0.0%	1.0%	30.2%	0.0%	0.8%	0.0%	30.2%
1998	1233	0.6%	0.0%	0.0%	0.0%	3.3%	1.1%	10.0%	0.0%	9.9%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	2.3%	20.6%	0.0%	0.6%	0.0%	51.2%
1999	2508	0.7%	0.0%	0.0%	0.0%	0.4%	4.7%	4.4%	0.0%	7.8%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.1%	12.1%	0.0%	1.2%	0.0%	68.5%
2000	570	0.7%	0.0%	0.0%	0.0%	0.5%	6.7%	3.2%	0.0%	16.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	19.8%	0.0%	0.5%	0.0%	51.8%
2001	315	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	2.2%	0.0%	11.7%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	0.0%	26.0%	0.0%	1.6%	0.0%	52.7%
2002	310	1.0%	0.0%	0.0%	0.0%	0.0%	1.0%	15.5%	0.0%	16.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	13.2%	0.0%	0.6%	0.0%	51.9%
2003	962	0.0%	0.0%	0.0%	0.9%	0.4%	19.9%	4.7%	0.0%	10.6%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.5%	10.2%	0.0%	0.2%	0.0%	52.5%
2004	1653	0.2%	0.0%	0.0%	0.0%	0.5%	13.1%	4.1%	0.0%	6.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.2%	5.9%	0.0%	0.8%	0.1%	68.3%
2005	1240	1.0%	0.0%	0.0%	0.2%	0.0%	7.5%	5.7%	0.0%	11.5%	0.0%	0.3%	0.0%	0.2%	0.0%	0.2%	0.1%	8.7%	0.0%	0.9%	6.9%	56.7%
2006	731	0.5%	0.0%	0.0%	0.0%	0.0%	9.4%	7.0%	0.0%	12.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.5%	5.9%	0.0%	1.1%	27.4%	35.2%
2007	816	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	8.2%	0.0%	4.9%	0.0%	0.0%	0.0%	0.5%	0.0%	0.2%	1.0%	17.4%	0.0%	0.4%	24.4%	40.6%
2008	579	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	5.0%	0.0%	7.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	13.1%	0.0%	15.2%	0.0%	56.0%
1979-2008	790	0.4%	0.0%	0.0%	0.3%	0.4%	5.7%	5.9%	0.6%	14.1%	0.3%	3.9%	0.0%	0.9%	0.0%	0.1%	4.7%	16.7%	0.0%	2.4%	3.3%	40.5%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	447	0.2%	0.0%	0.0%	0.8%	0.2%	4.6%	4.2%	1.7%	20.0%	0.9%	10.9%	0.0%	1.9%	0.0%	0.0%	12.7%	19.7%	0.0%	3.1%	0.0%	19.0%
1996-1998	931	0.5%	0.0%	0.0%	0.0%	1.9%	2.3%	10.6%	0.0%	14.3%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	1.6%	25.4%	0.0%	0.7%	0.0%	40.7%
1999-2008	968	0.4%	0.0%	0.0%	0.1%	0.2%	7.0%	6.0%	0.0%	10.5%	0.0%	0.0%	0.0%	0.5%	0.0%	0.1%	0.4%	13.2%	0.0%	2.2%	5.9%	53.4%

Appendix C.59. Percent distribution of Sooes Fall Fingerling reported catch among fisheries and escapement.

Catch	Estimated # of	AABM							ISBM													
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	158	7 0%	1 3%	0 0%	0 0%	0 0%	1 9%	8 2%	0 0%	0 0%	0 0%	6 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	75 3%
1990	141	9 9%	2 8%	4 3%	14 2%	0 0%	17 7%	0 0%	0 0%	7 1%	1 4%	2 8%	0 0%	1 4%	0 0%	3 5%	0 0%	0 0%	0 0%	0 0%	0 0%	34 8%
1991	345	11 9%	0 0%	0 0%	9 9%	0 0%	5 2%	0 0%	0 0%	0 0%	0 0%	3 8%	0 0%	0 0%	0 0%	0 0%	0 0%	4 9%	0 0%	0 0%	0 0%	64 3%
1992	295	8 5%	0 0%	0 0%	9 5%	0 0%	19 3%	1 7%	0 0%	1 0%	2 0%	3 4%	0 0%	0 3%	0 0%	0 7%	0 0%	1 7%	0 0%	0 0%	0 0%	51 9%
1993	237	4 6%	0 0%	0 0%	7 6%	2 1%	16 0%	0 0%	0 0%	0 0%	2 1%	2 1%	0 0%	0 4%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	64 1%
1994	200	17 0%	3 0%	4 0%	10 5%	1 0%	8 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	55 5%
1995	153	8 5%	0 0%	0 0%	4 6%	0 0%	9 8%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 6%	0 0%	73 9%
1996	206	8 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	90 3%
1997	289	10 4%	0 0%	5 2%	5 2%	0 0%	0 0%	2 8%	0 0%	1 4%	0 7%	0 3%	0 0%	1 0%	0 0%	0 0%	2 8%	0 0%	0 0%	20 8%	0 0%	49 5%
1998	267	9 0%	0 0%	1 5%	17 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	72 3%
1999	226	11 9%	0 0%	11 9%	6 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	68 6%
2000	84	0 0%	0 0%	2 4%	0 0%	0 0%	0 0%	10 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	86 9%
2001	295	6 1%	0 0%	2 0%	0 0%	0 0%	0 0%	2 0%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	88 5%
2002	536	10 6%	0 2%	1 3%	2 8%	3 0%	0 7%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	79 7%
2003	753	12 1%	0 1%	0 0%	4 8%	2 3%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 7%	0 0%	25 2%	0 0%	53 0%
2004	880	17 4%	0 5%	2 0%	14 9%	0 0%	0 8%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 5%	0 0%	0 3%	0 0%	0 0%	0 0%	61 0%
2005	492	26 8%	0 0%	2 2%	25 0%	6 9%	1 0%	0 0%	0 0%	1 6%	0 0%	0 0%	0 0%	0 8%	0 0%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%	33 7%
2006	215	22 8%	1 4%	2 8%	26 5%	1 9%	1 4%	2 8%	0 0%	5 1%	0 0%	0 0%	0 0%	0 5%	0 0%	1 4%	0 0%	1 9%	0 0%	0 0%	0 0%	31 6%
2007	68	11 8%	0 0%	0 0%	17 6%	10 3%	0 0%	0 0%	0 0%	5 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	54 4%
2008	102	4 9%	0 0%	0 0%	11 8%	11 8%	0 0%	9 8%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	59 8%
1979-2008	297	11 0%	0 5%	2 0%	9 4%	2 0%	4 1%	2 0%	0 0%	1 3%	0 4%	1 0%	0 0%	0 3%	0 0%	0 5%	0 2%	0 5%	0 0%	2 4%	0 0%	62 5%
1979-1984	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	218	9 6%	1 0%	1 2%	8 0%	0 4%	11 1%	1 4%	0 0%	1 2%	0 9%	2 7%	0 0%	0 3%	0 0%	0 6%	0 0%	1 1%	0 0%	0 4%	0 0%	60 0%
1996-1998	254	9 4%	0 0%	2 2%	7 5%	0 0%	0 0%	0 9%	0 0%	0 5%	0 2%	0 3%	0 0%	0 3%	0 0%	0 2%	0 9%	0 0%	0 0%	6 9%	0 0%	70 7%
1999-2008	365	12 4%	0 2%	2 5%	11 0%	3 6%	0 4%	2 7%	0 0%	1 6%	0 0%	0 0%	0 0%	0 3%	0 1%	0 5%	0 1%	0 3%	0 0%	2 5%	0 0%	61 7%

Appendix C.60. Percent distribution of Sooes Fall Fingerling total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	191	9.9%	4.7%	0.5%	3.1%	0.0%	4.7%	7.3%	0.0%	0.0%	0.0%	5.8%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	62.3%
1990	170	11.8%	5.9%	4.1%	16.5%	0.0%	17.6%	0.0%	0.0%	6.5%	1.8%	2.4%	0.0%	1.8%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	28.8%
1991	374	13.6%	0.0%	0.3%	10.7%	0.0%	7.2%	0.0%	0.0%	0.0%	0.3%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	0.0%	0.0%	0.0%	59.4%
1992	326	10.4%	0.3%	0.3%	10.7%	0.0%	20.6%	1.5%	0.0%	1.2%	2.1%	3.1%	0.0%	0.3%	0.0%	0.6%	0.0%	1.8%	0.0%	0.0%	0.0%	46.9%
1993	253	7.1%	0.4%	0.0%	7.9%	2.0%	17.0%	0.0%	0.0%	0.0%	2.0%	2.0%	0.0%	0.4%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	60.1%
1994	226	19.5%	8.0%	3.5%	9.7%	0.9%	7.5%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	49.1%
1995	181	14.9%	0.0%	0.0%	6.1%	0.0%	12.7%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	62.4%
1996	225	15.1%	0.0%	0.0%	0.9%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	82.7%
1997	307	12.1%	0.0%	5.9%	5.5%	0.0%	0.0%	2.6%	0.0%	1.3%	0.7%	0.7%	0.0%	1.0%	0.0%	0.0%	3.9%	0.0%	0.0%	19.9%	0.0%	46.6%
1998	280	10.4%	0.0%	1.8%	18.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	68.9%
1999	236	13.1%	0.0%	13.1%	6.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	65.7%
2000	89	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	12.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	82.0%
2001	312	9.3%	0.0%	2.9%	0.0%	0.0%	0.0%	2.6%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	83.7%
2002	566	13.1%	0.2%	1.6%	3.4%	3.7%	0.9%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	75.4%
2003	800	14.1%	0.1%	0.0%	5.5%	2.8%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.9%	0.0%	24.8%	0.0%	49.9%
2004	938	19.3%	0.9%	2.1%	16.2%	0.0%	0.7%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.4%	0.0%	0.4%	0.0%	0.0%	57.2%
2005	523	27.2%	0.0%	2.3%	25.4%	8.0%	1.0%	0.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.8%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	31.7%
2006	227	23.3%	1.8%	2.6%	26.4%	2.2%	1.3%	3.1%	0.0%	5.3%	0.0%	0.0%	0.0%	0.4%	0.0%	1.3%	0.0%	2.2%	0.0%	0.0%	0.0%	30.0%
2007	78	12.8%	0.0%	0.0%	17.9%	15.4%	0.0%	0.0%	0.0%	6.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	47.4%
2008	115	8.7%	0.0%	0.0%	13.9%	12.2%	0.0%	9.6%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	53.0%
1979-2008	321	13.3%	1.1%	2.3%	10.3%	2.4%	4.6%	2.0%	0.0%	1.3%	0.4%	1.0%	0.0%	0.4%	0.0%	0.4%	0.3%	0.7%	0.0%	2.3%	0.0%	57.2%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	246	12.5%	2.8%	1.3%	9.3%	0.4%	12.5%	1.3%	0.0%	1.1%	1.0%	2.6%	0.0%	0.4%	0.0%	0.5%	0.1%	1.4%	0.0%	0.3%	0.0%	52.7%
1996-1998	271	12.5%	0.0%	2.5%	8.5%	0.0%	0.1%	0.9%	0.0%	0.4%	0.2%	0.4%	0.0%	0.3%	0.0%	0.1%	1.3%	0.0%	0.0%	6.6%	0.0%	66.1%
1999-2008	388	14.1%	0.3%	3.0%	11.6%	4.4%	0.4%	2.9%	0.0%	1.7%	0.0%	0.0%	0.0%	0.4%	0.1%	0.5%	0.1%	0.4%	0.0%	2.5%	0.0%	57.6%

Appendix C.61. Percent distribution of Spring Creek Tule reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							PSEM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	4503	0.0%	0.0%	0.0%	0.1%	0.0%	23.7%	0.1%	0.2%	1.2%	0.7%	2.7%	0.0%	16.5%	0.6%	7.5%	1.4%	5.4%	0.0%	21.7%	0.0%	18.4%
1980	5938	0.1%	0.0%	0.0%	0.1%	0.0%	26.0%	0.1%	0.1%	2.7%	0.5%	1.1%	0.0%	23.4%	1.9%	5.2%	0.7%	4.9%	0.0%	20.9%	0.0%	12.5%
1981	6522	0.0%	0.0%	0.0%	0.1%	0.0%	21.2%	0.1%	0.1%	1.4%	0.2%	2.0%	0.0%	23.2%	0.3%	10.8%	0.5%	1.9%	0.0%	20.0%	0.0%	18.4%
1982	4315	0.0%	0.0%	0.0%	0.0%	0.0%	22.1%	0.0%	0.0%	1.0%	0.5%	0.3%	0.0%	19.6%	0.1%	7.2%	1.1%	1.0%	0.0%	34.4%	0.0%	12.7%
1983	782	0.0%	0.0%	0.0%	0.0%	0.0%	29.9%	0.5%	0.0%	1.2%	0.4%	0.0%	0.0%	8.4%	0.0%	4.0%	0.3%	5.8%	0.0%	19.9%	0.0%	29.7%
1984	1013	0.0%	0.0%	0.0%	0.0%	0.0%	26.9%	0.4%	0.0%	0.0%	2.4%	1.3%	0.0%	5.8%	0.0%	1.0%	0.7%	3.8%	0.0%	26.1%	3.0%	28.7%
1985	1160	0.0%	0.0%	0.0%	0.0%	0.0%	13.5%	0.7%	0.0%	0.0%	0.2%	0.2%	0.0%	14.0%	0.0%	2.4%	0.7%	1.4%	0.0%	26.7%	0.3%	40.0%
1986	325	0.0%	0.0%	0.0%	0.0%	0.0%	23.1%	2.5%	0.0%	1.8%	2.8%	1.5%	0.0%	2.5%	0.0%	2.5%	0.9%	4.0%	0.0%	34.2%	1.2%	23.1%
1987	114	0.0%	0.0%	0.0%	0.0%	0.0%	7.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.0%	0.0%	8.8%	17.5%	2.6%	0.0%	21.1%	8.8%	19.3%
1988	631	0.0%	0.0%	0.0%	0.5%	0.0%	23.5%	2.2%	0.0%	1.0%	0.3%	2.1%	0.0%	17.3%	0.0%	3.3%	1.6%	2.7%	0.0%	29.8%	4.4%	11.4%
1989	2036	0.0%	0.0%	0.0%	0.2%	0.0%	14.4%	3.3%	0.0%	0.4%	0.0%	0.4%	0.0%	24.8%	0.0%	3.3%	0.1%	1.6%	0.0%	34.4%	3.3%	13.8%
1990	2096	0.0%	0.0%	0.0%	0.2%	0.0%	17.6%	4.5%	0.3%	0.4%	0.3%	1.0%	0.0%	14.3%	0.0%	7.0%	0.3%	3.9%	0.0%	22.7%	2.2%	25.3%
1991	2577	0.0%	0.0%	0.0%	0.0%	0.0%	13.1%	1.3%	0.0%	0.2%	0.3%	0.5%	0.0%	16.9%	0.0%	4.7%	0.5%	2.4%	0.0%	33.8%	3.9%	22.5%
1992	2834	0.0%	0.0%	0.0%	0.0%	0.0%	11.9%	2.5%	0.2%	0.4%	0.3%	0.5%	0.0%	26.5%	0.0%	5.2%	0.0%	3.1%	0.0%	14.6%	3.5%	31.3%
1993	1107	0.0%	0.0%	0.0%	0.0%	0.0%	17.7%	4.2%	0.0%	0.0%	0.0%	0.4%	0.0%	17.7%	0.2%	2.9%	0.0%	4.3%	0.0%	21.2%	3.2%	28.3%
1994	893	0.0%	0.0%	0.0%	0.0%	0.0%	18.4%	3.8%	0.0%	0.0%	0.0%	0.8%	0.0%	3.5%	0.0%	0.0%	0.0%	0.8%	0.0%	30.3%	0.0%	42.4%
1995	906	0.0%	0.0%	0.0%	0.0%	0.0%	6.7%	2.6%	0.0%	0.0%	0.0%	0.2%	0.0%	1.8%	0.0%	0.0%	0.3%	0.0%	0.0%	37.5%	0.0%	50.8%
1996	817	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	6.1%	0.0%	1.1%	0.0%	0.7%	0.0%	57.8%	1.5%	29.7%
1997	597	0.0%	0.0%	0.0%	0.0%	0.0%	12.1%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	5.4%	0.0%	1.3%	0.0%	2.8%	0.0%	24.3%	6.7%	43.9%
1998	786	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.0%	1.7%	0.0%	0.3%	0.0%	14.9%	10.8%	67.9%
1999	1514	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	3.8%	0.0%	0.3%	0.0%	0.0%	0.0%	16.8%	0.0%	2.6%	0.0%	0.2%	0.0%	36.5%	6.4%	33.0%
2000	788	0.0%	0.0%	0.0%	0.0%	0.0%	4.3%	5.3%	0.0%	0.0%	0.0%	0.0%	0.0%	5.5%	0.0%	1.9%	0.0%	0.4%	0.0%	22.1%	7.1%	53.4%
2001	6337	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	0.8%	0.0%	0.2%	0.0%	0.0%	0.0%	13.9%	0.0%	2.9%	0.0%	0.3%	0.0%	22.5%	2.1%	54.0%
2002	4302	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%	1.3%	0.0%	0.2%	0.0%	0.0%	0.0%	16.3%	0.0%	7.8%	0.0%	0.3%	0.0%	25.1%	2.5%	35.3%
2003	6084	0.0%	0.0%	0.0%	0.0%	0.0%	10.2%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	10.5%	0.0%	3.5%	0.0%	0.1%	0.0%	22.1%	2.2%	48.9%
2004	6137	0.0%	0.0%	0.0%	0.0%	0.0%	12.0%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	9.0%	0.0%	3.1%	0.0%	0.3%	0.0%	18.4%	1.8%	52.4%
2005	2360	0.0%	0.0%	0.0%	0.0%	0.0%	23.9%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	6.5%	0.0%	1.0%	0.0%	0.0%	0.0%	27.3%	0.9%	37.5%
2006	699	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	5.2%	0.0%	1.9%	0.0%	1.1%	0.0%	37.1%	1.0%	32.6%
2007	982	0.0%	0.0%	0.0%	0.0%	0.0%	5.9%	3.0%	0.0%	0.4%	0.0%	0.0%	0.0%	2.6%	0.0%	3.7%	0.0%	0.9%	0.0%	38.9%	1.5%	43.1%
2008	2144	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	6.2%	0.0%	0.3%	0.0%	0.0%	0.0%	6.3%	0.0%	2.8%	0.0%	1.6%	0.0%	41.6%	2.6%	33.6%
1979-2008	2377	0.0%	0.0%	0.0%	0.0%	0.0%	14.1%	2.3%	0.0%	0.4%	0.3%	0.5%	0.0%	11.9%	0.1%	3.7%	0.9%	2.0%	0.0%	27.9%	2.7%	33.1%
1979-1984	3846	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%	0.2%	0.1%	1.2%	0.8%	1.2%	0.0%	16.1%	0.5%	5.9%	0.8%	3.8%	0.0%	23.8%	0.5%	20.1%
1985-1995	1334	0.0%	0.0%	0.0%	0.1%	0.0%	15.3%	2.5%	0.0%	0.4%	0.4%	0.7%	0.0%	13.9%	0.0%	3.6%	2.0%	2.4%	0.0%	27.9%	2.8%	28.0%
1996-1998	733	0.0%	0.0%	0.0%	0.0%	0.0%	4.1%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	4.8%	0.0%	1.4%	0.0%	1.3%	0.0%	32.3%	6.3%	47.2%
1999-2008	3135	0.0%	0.0%	0.0%	0.0%	0.0%	9.3%	3.3%	0.0%	0.1%	0.0%	0.0%	0.0%	9.3%	0.0%	3.1%	0.0%	0.5%	0.0%	29.2%	2.8%	42.4%

Appendix C.62. Percent distribution of Spring Creek Tule total fishing mortalities among fisheries and escapement.

	Estimated	AABM							ISBM												
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	5388	0.0%	0.0%	0.0%	0.1%	0.0%	26.9%	0.1%	0.2%	1.1%	0.8%	2.5%	0.0%	17.9%	0.7%	7.3%	1.8%	6.1%	0.0%	19.2%	0.0%	15.4%
1980	7108	0.1%	0.0%	0.0%	0.1%	0.0%	28.4%	0.1%	0.1%	2.4%	0.6%	1.0%	0.0%	24.5%	2.2%	5.0%	0.8%	5.7%	0.0%	18.6%	0.0%	10.5%
1981	7410	0.0%	0.0%	0.0%	0.1%	0.0%	23.0%	0.1%	0.1%	1.3%	0.2%	1.9%	0.0%	24.3%	0.3%	10.8%	0.5%	2.2%	0.0%	18.9%	0.0%	16.2%
1982	4966	0.0%	0.0%	0.0%	0.0%	0.0%	25.1%	0.0%	0.0%	1.0%	0.5%	0.2%	0.0%	21.4%	0.1%	6.9%	1.1%	1.0%	0.0%	31.6%	0.0%	11.1%
1983	880	0.0%	0.0%	0.0%	0.0%	0.0%	31.5%	0.5%	0.0%	1.1%	0.5%	0.0%	0.0%	9.1%	0.0%	4.1%	0.3%	8.0%	0.0%	18.6%	0.0%	26.4%
1984	1159	0.0%	0.0%	0.0%	0.0%	0.0%	26.8%	0.3%	0.0%	0.0%	2.3%	1.2%	0.0%	6.0%	0.0%	1.0%	0.9%	9.0%	0.0%	24.4%	2.8%	25.1%
1985	1258	0.0%	0.0%	0.0%	0.0%	0.0%	14.6%	0.6%	0.0%	0.0%	0.2%	0.2%	0.0%	16.2%	0.0%	2.5%	0.7%	1.4%	0.0%	26.5%	0.2%	36.9%
1986	351	0.0%	0.0%	0.0%	0.0%	0.0%	24.5%	2.6%	0.0%	1.7%	2.8%	1.7%	0.0%	2.6%	0.0%	2.6%	1.1%	4.8%	0.0%	33.0%	1.1%	21.4%
1987	151	0.0%	0.0%	0.0%	0.0%	0.0%	9.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.2%	0.0%	7.9%	23.2%	4.6%	0.0%	17.2%	7.3%	14.6%
1988	799	0.0%	0.0%	0.0%	0.5%	0.0%	27.2%	2.3%	0.0%	1.0%	0.3%	1.8%	0.0%	17.6%	0.0%	3.1%	2.1%	5.0%	0.0%	25.5%	4.6%	9.0%
1989	2374	0.0%	0.0%	0.0%	0.2%	0.0%	16.5%	3.2%	0.0%	0.5%	0.0%	0.4%	0.0%	26.7%	0.0%	3.2%	0.2%	1.9%	0.0%	31.7%	3.7%	11.8%
1990	2445	0.0%	0.0%	0.0%	0.2%	0.0%	20.0%	4.5%	0.3%	0.4%	0.4%	0.9%	0.0%	15.5%	0.0%	7.0%	0.4%	5.5%	0.0%	20.7%	2.3%	21.7%
1991	2963	0.0%	0.0%	0.0%	0.0%	0.0%	15.2%	1.3%	0.0%	0.3%	0.3%	0.5%	0.0%	18.7%	0.0%	4.7%	0.6%	3.2%	0.0%	31.5%	4.3%	19.6%
1992	3225	0.0%	0.0%	0.0%	0.0%	0.0%	14.0%	2.4%	0.2%	0.5%	0.3%	0.5%	0.0%	28.7%	0.0%	5.0%	0.0%	3.3%	0.0%	13.8%	3.9%	27.5%
1993	1252	0.0%	0.0%	0.0%	0.0%	0.0%	19.7%	4.2%	0.0%	0.0%	0.0%	0.3%	0.0%	19.3%	0.2%	2.9%	0.0%	5.5%	0.0%	19.6%	3.3%	25.0%
1994	971	0.0%	0.0%	0.0%	0.0%	0.0%	21.6%	3.9%	0.0%	0.0%	0.0%	0.9%	0.0%	3.4%	0.0%	0.0%	0.0%	1.0%	0.0%	30.1%	0.0%	39.0%
1995	976	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	2.8%	0.0%	0.0%	0.0%	0.4%	0.0%	1.8%	0.0%	0.0%	0.5%	0.0%	0.0%	37.3%	0.0%	47.1%
1996	878	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	6.0%	0.0%	1.1%	0.0%	0.9%	0.0%	57.9%	1.8%	27.7%
1997	653	0.0%	0.0%	0.0%	0.0%	0.0%	14.9%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	5.8%	0.0%	1.2%	0.0%	3.7%	0.0%	23.4%	7.4%	40.1%
1998	846	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	0.0%	1.9%	0.0%	1.2%	0.0%	15.1%	13.5%	63.1%
1999	1670	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	3.9%	0.0%	0.3%	0.0%	0.0%	0.0%	19.2%	0.0%	2.6%	0.0%	0.3%	0.0%	35.7%	7.7%	29.9%
2000	869	0.0%	0.0%	0.0%	0.0%	0.0%	4.7%	6.1%	0.0%	0.0%	0.0%	0.0%	0.0%	6.3%	0.0%	2.2%	0.0%	2.1%	0.0%	21.7%	8.4%	48.4%
2001	6843	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	0.8%	0.0%	0.3%	0.0%	0.0%	0.0%	16.1%	0.0%	3.1%	0.0%	1.2%	0.0%	22.5%	2.6%	50.0%
2002	4712	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%	1.4%	0.0%	0.3%	0.0%	0.0%	0.0%	18.8%	0.0%	8.2%	0.0%	0.6%	0.0%	24.6%	2.9%	32.2%
2003	6470	0.0%	0.0%	0.0%	0.0%	0.0%	10.5%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.1%	0.0%	3.7%	0.0%	0.2%	0.0%	22.0%	2.4%	46.0%
2004	6425	0.0%	0.0%	0.0%	0.0%	0.0%	11.9%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	10.4%	0.0%	3.3%	0.0%	0.4%	0.0%	18.7%	2.1%	50.1%
2005	2455	0.0%	0.0%	0.0%	0.0%	0.0%	24.3%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	7.2%	0.0%	1.1%	0.0%	0.0%	0.0%	27.3%	1.0%	36.0%
2006	745	0.0%	0.0%	0.0%	0.0%	0.0%	16.8%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.9%	0.0%	1.9%	0.0%	1.5%	0.0%	37.2%	1.2%	30.6%
2007	1113	0.0%	0.0%	0.0%	0.0%	0.0%	6.2%	3.3%	0.0%	0.4%	0.0%	0.0%	0.0%	3.0%	0.0%	4.0%	0.0%	6.3%	0.0%	37.0%	1.7%	38.0%
2008	2311	0.0%	0.0%	0.0%	0.0%	0.0%	4.8%	6.5%	0.0%	0.4%	0.0%	0.0%	0.0%	7.3%	0.0%	2.8%	0.0%	2.0%	0.0%	41.7%	3.2%	31.2%
1979-2008	2656	0.0%	0.0%	0.0%	0.0%	0.0%	15.5%	2.4%	0.0%	0.4%	0.3%	0.5%	0.0%	13.0%	0.1%	3.7%	1.1%	3.0%	0.0%	26.8%	3.0%	30.0%
1979-1984	4485	0.0%	0.0%	0.0%	0.0%	0.0%	27.0%	0.2%	0.1%	1.1%	0.8%	1.1%	0.0%	17.2%	0.5%	5.8%	0.9%	5.3%	0.0%	21.9%	0.5%	17.4%
1985-1995	1524	0.0%	0.0%	0.0%	0.1%	0.0%	17.6%	2.5%	0.0%	0.4%	0.4%	0.7%	0.0%	15.1%	0.0%	3.5%	2.6%	3.3%	0.0%	26.1%	2.8%	24.9%
1996-1998	792	0.0%	0.0%	0.0%	0.0%	0.0%	5.5%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	0.0%	1.4%	0.0%	1.9%	0.0%	32.1%	7.5%	43.6%
1999-2008	3361	0.0%	0.0%	0.0%	0.0%	0.0%	9.4%	3.6%	0.0%	0.2%	0.0%	0.0%	0.0%	10.6%	0.0%	3.3%	0.0%	1.4%	0.0%	28.8%	3.3%	39.2%

Appendix C.63. Percent distribution of So. Puget Sound Fall Fingerling reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	2776	0.2%	0.0%	0.0%	0.1%	0.1%	22.4%	0.1%	2.4%	11.5%	0.8%	2.0%	0.0%	2.8%	0.0%	0.1%	17.9%	21.4%	0.0%	7.1%	0.0%	11.0%
1983	3848	0.1%	0.0%	0.0%	0.7%	0.1%	18.2%	0.3%	0.3%	4.1%	1.8%	3.2%	0.0%	1.6%	0.0%	0.1%	20.5%	28.0%	0.0%	6.7%	0.2%	14.2%
1984	3639	0.1%	0.2%	0.0%	0.7%	0.1%	20.8%	0.3%	1.3%	7.3%	1.4%	1.2%	0.0%	1.4%	0.0%	0.1%	15.2%	22.1%	0.0%	9.3%	0.2%	18.4%
1985	1421	0.8%	0.0%	0.0%	0.0%	0.2%	18.6%	0.8%	0.4%	5.9%	0.3%	2.0%	0.0%	1.9%	0.0%	0.0%	17.6%	18.2%	0.0%	11.7%	0.0%	21.6%
1986	480	0.0%	0.0%	0.0%	0.0%	0.0%	19.0%	0.0%	0.0%	7.5%	0.0%	2.9%	0.0%	4.0%	0.0%	1.3%	9.8%	21.0%	0.0%	0.8%	0.0%	33.8%
1987	433	0.0%	0.0%	0.0%	0.0%	0.0%	12.7%	0.0%	0.0%	12.7%	0.0%	3.9%	0.0%	7.2%	0.5%	0.2%	13.4%	10.6%	0.0%	0.0%	0.0%	38.8%
1988	1709	0.1%	0.0%	0.0%	0.2%	0.5%	5.4%	4.2%	0.2%	7.3%	0.5%	4.6%	0.0%	7.3%	0.0%	0.6%	25.2%	14.0%	0.0%	1.2%	0.0%	28.6%
1989	5015	0.1%	0.0%	0.0%	0.2%	0.0%	7.4%	2.5%	0.2%	4.3%	0.3%	4.0%	0.0%	11.0%	0.0%	0.4%	15.3%	15.7%	0.0%	6.1%	0.0%	32.3%
1990	5452	0.0%	0.0%	0.1%	0.3%	0.0%	22.7%	4.3%	0.3%	3.4%	0.3%	1.2%	0.0%	9.0%	0.0%	0.4%	14.0%	11.6%	0.0%	9.7%	0.4%	22.4%
1991	1751	0.4%	0.0%	0.0%	0.0%	0.0%	15.2%	2.6%	0.1%	1.7%	0.1%	1.0%	0.0%	11.6%	0.0%	0.3%	11.8%	12.6%	0.0%	14.7%	0.2%	27.6%
1992	1337	0.6%	0.1%	0.0%	0.0%	0.0%	17.2%	2.2%	0.3%	3.4%	0.9%	3.1%	0.0%	9.1%	0.0%	0.7%	14.1%	17.4%	0.0%	9.6%	0.0%	21.5%
1993	1403	0.2%	0.1%	0.0%	0.0%	0.0%	15.6%	4.6%	0.7%	3.1%	0.1%	2.9%	0.0%	5.5%	0.0%	0.2%	8.3%	20.8%	0.0%	7.5%	0.0%	30.4%
1994	1591	0.0%	0.0%	0.0%	0.5%	0.0%	9.1%	1.3%	0.0%	3.0%	0.0%	4.3%	0.0%	0.7%	0.0%	0.0%	11.3%	9.5%	0.0%	5.0%	0.3%	55.1%
1995	3515	0.2%	0.0%	0.0%	0.1%	0.0%	3.7%	1.1%	0.0%	1.8%	0.0%	1.0%	0.0%	1.3%	0.0%	0.0%	4.6%	11.7%	0.0%	1.0%	0.0%	73.4%
1996	4824	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	1.7%	0.0%	4.1%	0.0%	0.4%	0.0%	2.9%	0.0%	0.0%	3.8%	14.8%	0.0%	2.6%	0.0%	69.5%
1997	2579	0.5%	0.0%	0.0%	0.3%	0.0%	5.4%	2.8%	0.0%	1.7%	0.0%	0.5%	0.0%	1.6%	0.0%	0.1%	2.2%	12.7%	0.0%	0.7%	0.2%	71.3%
1998	1755	1.3%	0.0%	0.0%	0.9%	0.1%	0.5%	1.4%	0.0%	1.7%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	4.2%	5.8%	0.0%	3.8%	0.5%	79.0%
1999	2153	0.5%	0.0%	0.0%	0.2%	0.0%	0.7%	4.0%	0.0%	2.5%	0.0%	0.0%	0.0%	3.0%	0.0%	0.3%	4.5%	4.8%	0.0%	4.7%	0.0%	74.7%
2000	2218	0.4%	0.0%	0.0%	0.0%	0.0%	10.0%	4.3%	0.0%	1.8%	0.0%	0.0%	0.0%	0.3%	0.0%	0.3%	6.2%	6.3%	0.0%	5.8%	0.0%	64.6%
2001	3737	0.1%	0.1%	0.0%	0.0%	0.1%	8.1%	3.2%	0.0%	2.9%	0.0%	0.0%	0.0%	4.2%	0.0%	0.4%	4.2%	8.7%	0.0%	7.2%	0.0%	60.9%
2002	3429	0.7%	0.0%	0.0%	0.7%	0.1%	12.7%	3.1%	0.0%	4.3%	0.0%	0.1%	0.0%	4.0%	0.0%	0.5%	3.6%	6.3%	0.0%	14.4%	0.0%	49.5%
2003	2167	0.6%	0.0%	0.0%	0.8%	0.0%	14.2%	3.7%	0.0%	3.8%	0.0%	0.0%	0.0%	4.9%	0.0%	0.4%	7.0%	9.5%	0.0%	7.5%	0.0%	47.6%
2004	1934	0.4%	0.1%	0.0%	0.6%	0.3%	17.7%	4.2%	0.0%	2.7%	0.0%	0.0%	0.0%	9.6%	0.0%	1.4%	8.0%	9.2%	0.0%	6.6%	0.0%	39.2%
2005	2115	0.0%	0.0%	0.0%	0.4%	0.5%	13.4%	4.5%	0.0%	3.8%	0.0%	0.0%	0.0%	5.6%	0.0%	1.2%	4.1%	6.3%	0.0%	1.8%	0.0%	58.4%
2006	3279	0.3%	0.0%	0.1%	0.5%	0.4%	12.3%	2.6%	0.0%	2.1%	0.0%	0.0%	0.0%	6.3%	0.0%	0.5%	6.3%	6.6%	0.0%	7.7%	0.0%	54.3%
2007	3215	0.2%	0.0%	0.0%	0.2%	0.0%	11.8%	4.1%	0.0%	1.4%	0.0%	0.0%	0.0%	5.0%	0.0%	0.2%	3.2%	10.0%	0.0%	12.5%	0.2%	51.3%
2008	2340	0.0%	0.0%	0.0%	0.3%	0.0%	7.2%	3.5%	0.0%	2.2%	0.0%	0.0%	0.0%	2.8%	0.0%	0.4%	4.1%	9.3%	0.0%	13.1%	0.3%	56.8%
1979-2008	2597	0.3%	0.0%	0.0%	0.3%	0.1%	11.9%	2.5%	0.2%	4.2%	0.2%	1.4%	0.0%	4.6%	0.0%	0.4%	9.6%	12.8%	0.0%	6.6%	0.1%	44.7%
1979-1984	3421	0.2%	0.1%	0.0%	0.5%	0.1%	20.5%	0.2%	1.3%	7.6%	1.4%	2.1%	0.0%	2.0%	0.0%	0.1%	17.9%	23.8%	0.0%	7.7%	0.1%	14.5%
1985-1995	2192	0.2%	0.0%	0.0%	0.1%	0.1%	13.3%	2.1%	0.2%	4.9%	0.2%	2.8%	0.0%	6.2%	0.0%	0.4%	13.2%	14.8%	0.0%	6.1%	0.1%	35.0%
1996-1998	3053	0.6%	0.0%	0.0%	0.4%	0.0%	2.0%	2.0%	0.0%	2.5%	0.0%	0.3%	0.0%	1.8%	0.0%	0.0%	3.4%	11.1%	0.0%	2.4%	0.2%	73.3%
1999-2008	2659	0.3%	0.0%	0.0%	0.4%	0.1%	10.8%	3.7%	0.0%	2.8%	0.0%	0.0%	0.0%	4.6%	0.0%	0.6%	5.1%	7.7%	0.0%	8.1%	0.0%	55.7%

Appendix C.64. Percent distribution of So. Puget Sound Fall Fingerling total fishing mortalities among fisheries and escapement.

Catch	Estimated # of	AABM							ISBM													
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	3260	0 2%	0 0%	0 0%	0 2%	0 1%	24 1%	0 1%	2 1%	10 5%	1 0%	1 8%	0 0%	2 8%	0 0%	0 1%	16 9%	24 1%	0 0%	6 4%	0 0%	9 3%
1983	4908	0 1%	0 0%	0 0%	0 7%	0 1%	17 7%	0 2%	0 2%	3 5%	1 8%	2 8%	0 0%	1 6%	0 0%	0 0%	19 5%	34 9%	0 0%	5 6%	0 2%	11 1%
1984	3981	0 1%	0 2%	0 0%	0 7%	0 1%	21 1%	0 3%	1 3%	7 1%	1 4%	1 1%	0 0%	1 5%	0 0%	0 1%	14 7%	24 3%	0 0%	9 0%	0 2%	16 8%
1985	1516	0 8%	0 0%	0 0%	0 0%	0 2%	18 4%	0 9%	0 3%	5 9%	0 3%	1 9%	0 0%	1 9%	0 0%	0 0%	17 4%	20 7%	0 0%	11 1%	0 0%	20 3%
1986	551	0 0%	0 0%	0 0%	0 0%	0 0%	19 1%	0 0%	0 0%	7 1%	0 0%	2 9%	0 0%	4 0%	0 0%	1 3%	9 1%	26 5%	0 0%	0 7%	0 0%	29 4%
1987	583	0 0%	0 0%	0 0%	0 0%	0 0%	21 3%	0 0%	0 0%	10 5%	0 0%	3 4%	0 0%	8 9%	0 9%	0 2%	11 0%	15 1%	0 0%	0 0%	0 0%	28 8%
1988	2540	0 4%	0 0%	0 0%	0 2%	0 4%	10 2%	3 3%	0 2%	9 1%	1 0%	3 5%	0 0%	7 8%	0 0%	0 5%	21 2%	22 0%	0 0%	0 9%	0 0%	19 3%
1989	5597	0 1%	0 0%	0 0%	0 3%	0 0%	8 8%	2 4%	0 2%	5 0%	0 4%	3 7%	0 0%	12 2%	0 0%	0 4%	14 7%	17 0%	0 0%	5 8%	0 0%	28 9%
1990	5926	0 0%	0 1%	0 1%	0 3%	0 0%	23 9%	4 3%	0 3%	3 5%	0 3%	1 2%	0 0%	9 2%	0 0%	0 4%	13 3%	13 0%	0 0%	9 1%	0 4%	20 6%
1991	1902	0 5%	0 0%	0 0%	0 0%	0 0%	16 5%	2 6%	0 2%	1 8%	0 1%	0 9%	0 0%	12 3%	0 0%	0 4%	11 3%	13 9%	0 0%	13 9%	0 2%	25 4%
1992	1601	0 6%	0 2%	0 0%	0 0%	0 0%	17 5%	2 1%	0 3%	3 5%	0 9%	2 9%	0 0%	9 1%	0 0%	0 6%	12 8%	23 3%	0 0%	8 2%	0 0%	17 9%
1993	1609	0 3%	0 1%	0 0%	0 0%	0 0%	18 1%	4 4%	1 0%	3 5%	0 1%	2 6%	0 0%	5 9%	0 0%	0 2%	7 8%	22 6%	0 0%	6 9%	0 0%	26 5%
1994	1858	0 0%	0 0%	0 0%	0 5%	0 0%	9 6%	1 3%	0 0%	3 3%	0 0%	5 1%	0 0%	0 6%	0 0%	0 0%	11 1%	16 6%	0 0%	4 5%	0 3%	47 1%
1995	3975	0 2%	0 1%	0 0%	0 1%	0 0%	5 4%	1 2%	0 0%	2 1%	0 0%	1 7%	0 0%	1 3%	0 0%	0 0%	4 8%	17 3%	0 0%	1 0%	0 0%	64 9%
1996	5185	0 1%	0 0%	0 0%	0 0%	0 1%	0 9%	1 8%	0 0%	4 8%	0 0%	0 5%	0 0%	2 8%	0 0%	0 0%	3 7%	18 0%	0 0%	2 5%	0 0%	64 7%
1997	2765	0 5%	0 0%	0 0%	0 3%	0 0%	6 5%	2 9%	0 0%	1 9%	0 0%	0 8%	0 0%	1 7%	0 0%	0 1%	2 1%	15 8%	0 0%	0 7%	0 1%	66 5%
1998	1902	1 4%	0 0%	0 0%	0 9%	0 1%	0 5%	1 5%	0 0%	1 8%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	4 3%	11 4%	0 0%	3 7%	0 5%	72 9%
1999	2278	0 6%	0 0%	0 0%	0 3%	0 0%	0 7%	4 3%	0 0%	3 0%	0 0%	0 0%	0 0%	3 5%	0 0%	0 3%	4 5%	7 4%	0 0%	4 8%	0 0%	70 6%
2000	2511	0 4%	0 1%	0 0%	0 0%	0 0%	9 9%	4 6%	0 0%	2 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 2%	6 4%	13 6%	0 0%	5 4%	0 0%	57 1%
2001	4122	0 1%	0 1%	0 0%	0 0%	0 1%	7 8%	3 4%	0 0%	3 4%	0 0%	0 0%	0 0%	4 7%	0 0%	0 4%	4 1%	13 8%	0 0%	7 0%	0 0%	55 2%
2002	3689	0 9%	0 0%	0 0%	0 8%	0 1%	12 5%	3 4%	0 0%	4 9%	0 0%	0 2%	0 0%	4 3%	0 0%	0 5%	3 5%	9 0%	0 0%	13 9%	0 0%	46 1%
2003	2351	0 7%	0 0%	0 0%	0 9%	0 0%	13 8%	4 3%	0 0%	4 3%	0 0%	0 0%	0 0%	5 3%	0 0%	0 4%	6 6%	12 8%	0 0%	7 1%	0 0%	43 9%
2004	2205	0 4%	0 1%	0 0%	0 6%	0 4%	17 1%	4 4%	0 0%	3 0%	0 0%	0 0%	0 0%	10 1%	0 0%	1 4%	7 6%	14 5%	0 0%	5 9%	0 0%	34 4%
2005	2333	0 0%	0 0%	0 0%	0 4%	0 6%	13 2%	4 8%	0 0%	4 4%	0 0%	0 0%	0 0%	6 2%	0 0%	1 2%	4 1%	10 2%	0 0%	1 7%	0 0%	53 0%
2006	3549	0 3%	0 0%	0 1%	0 5%	0 5%	12 1%	2 8%	0 0%	2 5%	0 0%	0 0%	0 0%	7 0%	0 0%	0 5%	6 2%	9 9%	0 0%	7 5%	0 0%	50 2%
2007	3665	0 2%	0 0%	0 0%	0 2%	0 0%	11 5%	4 2%	0 0%	1 6%	0 0%	0 0%	0 0%	5 4%	0 0%	0 2%	3 1%	16 9%	0 0%	11 5%	0 2%	45 0%
2008	2567	0 0%	0 0%	0 0%	0 3%	0 0%	7 2%	3 8%	0 0%	2 6%	0 0%	0 0%	0 0%	3 2%	0 0%	0 4%	4 2%	13 5%	0 0%	12 8%	0 4%	51 7%
1979-2008	2923	0 3%	0 0%	0 0%	0 3%	0 1%	12 8%	2 6%	0 2%	4 3%	0 3%	1 4%	0 0%	5 0%	0 0%	0 4%	9 1%	17 0%	0 0%	6 2%	0 1%	39 9%
1979-1984	4050	0 2%	0 1%	0 0%	0 5%	0 1%	21 0%	0 2%	1 2%	7 0%	1 4%	1 9%	0 0%	2 0%	0 0%	0 1%	17 0%	27 8%	0 0%	7 0%	0 1%	12 4%
1985-1995	2514	0 3%	0 0%	0 0%	0 1%	0 1%	15 3%	2 0%	0 2%	5 0%	0 3%	2 7%	0 0%	6 7%	0 1%	0 4%	12 2%	18 9%	0 0%	5 6%	0 1%	29 9%
1996-1998	3284	0 7%	0 0%	0 0%	0 4%	0 0%	2 6%	2 0%	0 0%	2 8%	0 0%	0 5%	0 0%	1 9%	0 0%	0 0%	3 4%	15 1%	0 0%	2 3%	0 2%	68 0%
1999-2008	2927	0 4%	0 0%	0 0%	0 4%	0 2%	10 6%	4 0%	0 0%	3 2%	0 0%	0 0%	0 0%	5 0%	0 0%	0 6%	5 0%	12 2%	0 0%	7 7%	0 1%	50 7%

Appendix C.65. Percent distribution of So. Puget Sound Fall Yearling reported catch among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	283	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.0%	0.0%	3.2%	2.5%	0.0%	0.0%	1.1%	0.0%	0.0%	12.0%	66.1%	0.0%	2.5%	1.4%	8.5%
1983	395	0.0%	0.0%	0.0%	0.0%	0.0%	5.8%	0.0%	0.0%	0.5%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	9.9%	76.2%	0.0%	0.0%	0.0%	5.8%
1984	247	0.0%	0.0%	0.0%	0.0%	0.0%	7.3%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	32.8%	43.3%	0.0%	0.8%	0.0%	14.2%
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	1270	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.2%	0.6%	0.0%	1.4%	0.0%	0.1%	33.1%	52.4%	0.0%	0.3%	0.6%	11.0%
1991	1036	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	3.7%	0.0%	0.0%	12.6%	57.2%	0.0%	0.2%	0.4%	19.6%
1992	505	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%	1.2%	0.0%	0.8%	0.0%	0.0%	0.0%	4.6%	0.0%	0.8%	27.1%	48.1%	0.0%	1.0%	0.0%	11.9%
1993	265	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	10.9%	52.5%	0.0%	0.0%	3.0%	29.4%
1994	729	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.7%	0.0%	0.5%	0.0%	2.3%	0.0%	0.0%	0.0%	0.0%	16.5%	61.3%	0.0%	0.0%	0.0%	17.8%
1995	548	0.0%	0.0%	0.0%	0.0%	0.0%	6.4%	2.0%	0.0%	2.6%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	10.0%	66.8%	0.0%	0.4%	1.5%	10.0%
1996	691	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	1.7%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	2.9%	88.7%	0.0%	0.3%	0.6%	3.3%
1997	479	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	1.0%	0.0%	1.0%	0.0%	0.0%	0.0%	1.3%	0.0%	2.3%	4.0%	63.9%	0.0%	0.0%	0.0%	25.1%
1998	90	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	0.0%	2.2%	82.2%	0.0%	3.3%	0.0%	10.0%
1999	39	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.4%	0.0%	0.0%	0.0%	7.7%	0.0%	0.0%	2.6%	69.2%	0.0%	0.0%	0.0%	5.1%
2000	76	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.3%	0.0%	0.0%	0.0%	0.0%	0.0%	6.6%	0.0%	0.0%	11.8%	69.7%	0.0%	0.0%	0.0%	6.6%
2001	67	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	0.0%	0.0%	0.0%	74.6%	0.0%	0.0%	0.0%	17.9%
2002	12	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	83.3%	0.0%	0.0%	0.0%	16.7%
2003	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	140	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	9.3%	0.0%	0.0%	0.0%	87.9%
2005	255	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	1.2%	16.1%	53.7%	0.0%	3.1%	0.0%	23.9%
2006	257	0.0%	0.0%	0.0%	0.0%	0.0%	8.6%	4.1%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	0.0%	0.0%	21.3%	29.6%	0.0%	3.0%	0.0%	30.7%
2007	281	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	1.8%	14.2%	49.5%	0.0%	2.5%	0.0%	26.0%
2008	90	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	0.0%	0.0%	5.6%	37.8%	0.0%	11.1%	0.0%	40.0%
1979-2008	370	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.8%	0.0%	1.4%	0.2%	0.1%	0.0%	2.0%	0.0%	0.3%	11.7%	58.8%	0.0%	1.4%	0.4%	20.1%
1979-1984	308	0.0%	0.0%	0.0%	0.0%	0.0%	5.3%	0.0%	0.0%	1.8%	1.4%	0.0%	0.0%	0.4%	0.0%	0.0%	18.2%	61.9%	0.0%	1.1%	0.5%	9.5%
1985-1995	726	0.0%	0.0%	0.0%	0.0%	0.0%	3.2%	0.6%	0.0%	1.0%	0.0%	0.5%	0.0%	1.9%	0.0%	0.1%	18.4%	56.4%	0.0%	0.3%	0.9%	16.6%
1996-1998	420	0.1%	0.0%	0.0%	0.0%	0.0%	0.5%	0.8%	0.0%	0.9%	0.0%	0.0%	0.0%	1.4%	0.0%	0.8%	3.0%	78.3%	0.0%	1.2%	0.2%	12.8%
1999-2008	136	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	1.2%	0.0%	1.7%	0.0%	0.0%	0.0%	2.9%	0.0%	0.3%	8.0%	53.0%	0.0%	2.2%	0.0%	28.3%

Appendix C.66. Percent distribution of So. Puget Sound Fall Yearling total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	370	0 0%	0 0%	0 0%	0 0%	0 0%	3 8%	0 0%	0 0%	2 7%	2 2%	0 0%	0 0%	0 8%	0 0%	0 0%	10 8%	70 3%	0 0%	1 9%	1 1%	6 5%
1983	490	0 0%	0 0%	0 0%	0 0%	0 0%	5 5%	0 0%	0 0%	0 4%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%	8 8%	78 8%	0 0%	0 0%	0 0%	4 7%
1984	271	0 0%	0 0%	0 0%	0 0%	0 0%	7 0%	0 0%	0 0%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	31 0%	46 5%	0 0%	0 7%	0 0%	12 9%
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	1423	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 1%	0 1%	0 5%	0 0%	1 6%	0 0%	0 1%	31 3%	54 6%	0 0%	0 3%	0 7%	9 8%
1991	1232	0 0%	0 0%	0 0%	0 0%	0 0%	5 4%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	3 5%	0 0%	0 0%	11 3%	62 2%	0 0%	0 2%	0 3%	16 5%
1992	588	0 0%	0 0%	0 0%	0 0%	0 0%	4 9%	1 2%	0 0%	0 9%	0 0%	0 0%	0 0%	4 8%	0 0%	0 7%	25 9%	50 7%	0 0%	0 9%	0 0%	10 2%
1993	494	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	1 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	7 1%	71 9%	0 0%	0 0%	1 8%	15 8%
1994	876	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 7%	0 0%	0 7%	0 0%	2 4%	0 0%	0 0%	0 0%	0 0%	15 3%	65 1%	0 0%	0 0%	0 0%	14 8%
1995	793	0 0%	0 0%	0 0%	0 0%	0 0%	5 9%	1 6%	0 0%	2 0%	0 0%	0 4%	0 0%	0 3%	0 0%	0 0%	7 9%	73 4%	0 0%	0 3%	1 3%	6 9%
1996	809	0 5%	0 0%	0 0%	0 0%	0 0%	0 1%	1 1%	0 0%	1 9%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	2 6%	89 5%	0 0%	0 2%	0 6%	2 8%
1997	585	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	1 0%	0 0%	1 0%	0 0%	0 0%	0 0%	1 2%	0 0%	2 1%	3 4%	69 4%	0 0%	0 0%	0 0%	20 5%
1998	115	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 7%	0 0%	0 0%	1 7%	86 1%	0 0%	2 6%	0 0%	7 8%
1999	102	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 8%	0 0%	0 0%	0 0%	3 9%	0 0%	0 0%	1 0%	84 3%	0 0%	0 0%	0 0%	2 0%
2000	94	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 3%	0 0%	0 0%	0 0%	0 0%	0 0%	6 4%	0 0%	0 0%	9 6%	73 4%	0 0%	0 0%	0 0%	5 3%
2001	91	0 0%	0 0%	0 0%	0 0%	0 0%	3 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 2%	0 0%	0 0%	0 0%	81 3%	0 0%	0 0%	0 0%	13 2%
2002	18	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	88 9%	0 0%	0 0%	0 0%	11 1%
2003	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	271	0 0%	0 0%	0 0%	0 0%	0 0%	1 8%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	10 7%	40 6%	0 0%	0 4%	0 0%	45 4%
2005	314	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	1 3%	14 3%	60 2%	0 0%	2 5%	0 0%	19 4%
2006	419	0 0%	0 0%	0 0%	0 0%	0 0%	5 5%	3 1%	0 0%	0 0%	0 0%	0 0%	0 0%	1 7%	0 0%	0 0%	15 0%	53 2%	0 0%	1 9%	0 0%	19 6%
2007	358	0 0%	0 0%	0 0%	0 0%	0 0%	3 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	0 0%	1 7%	12 3%	58 4%	0 0%	2 0%	0 0%	20 4%
2008	291	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	0 0%	0 0%	2 7%	78 7%	0 0%	3 8%	0 0%	12 4%
1979-2008	476	0 0%	0 0%	0 0%	0 0%	0 0%	2 5%	0 7%	0 0%	1 0%	0 2%	0 2%	0 0%	1 6%	0 0%	0 3%	10 6%	68 4%	0 0%	0 8%	0 3%	13 2%
1979-1984	377	0 0%	0 0%	0 0%	0 0%	0 0%	5 4%	0 0%	0 0%	1 7%	1 3%	0 0%	0 0%	0 3%	0 0%	0 0%	16 9%	65 2%	0 0%	0 9%	0 4%	8 0%
1985-1995	901	0 0%	0 0%	0 0%	0 0%	0 0%	3 2%	0 6%	0 0%	0 9%	0 0%	0 5%	0 0%	1 9%	0 0%	0 1%	16 5%	63 0%	0 0%	0 3%	0 7%	12 3%
1996-1998	503	0 2%	0 0%	0 0%	0 0%	0 0%	0 5%	0 7%	0 0%	1 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 7%	2 6%	81 7%	0 0%	1 0%	0 2%	10 4%
1999-2008	218	0 0%	0 0%	0 0%	0 0%	0 0%	1 7%	1 1%	0 0%	1 0%	0 0%	0 0%	0 0%	2 1%	0 0%	0 3%	7 3%	68 8%	0 0%	1 2%	0 0%	16 5%

Appendix C.67. Percent distribution of Squaxin Pens Fall Yearling reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	1423	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	0.6%	0.0%	0.7%	0.0%	1.3%	0.0%	4.1%	0.0%	0.4%	33.1%	53.1%	0.0%	0.6%	0.0%	2.5%
1991	849	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	0.0%	0.5%	1.1%	0.0%	0.6%	0.0%	8.8%	0.0%	0.4%	32.9%	48.1%	0.0%	0.0%	0.0%	3.5%
1992	728	0.0%	0.0%	0.0%	0.0%	0.5%	2.3%	0.8%	0.7%	2.7%	0.0%	1.6%	0.0%	7.1%	0.0%	0.5%	21.3%	56.7%	0.0%	1.1%	0.0%	4.4%
1993	347	0.0%	0.0%	0.0%	0.0%	0.0%	9.2%	2.3%	0.0%	5.5%	0.0%	2.3%	0.0%	13.5%	0.0%	0.6%	2.3%	49.6%	0.0%	1.2%	0.0%	13.5%
1994	162	0.0%	0.0%	0.0%	0.0%	0.0%	27.2%	4.9%	0.0%	6.2%	0.0%	3.7%	0.0%	6.8%	0.0%	0.0%	23.5%	4.9%	0.0%	0.0%	0.0%	22.8%
1995	59	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	47.5%	30.5%	0.0%	0.0%	0.0%	22.0%
1996	362	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	4.4%	89.8%	0.0%	0.3%	0.0%	2.5%
1997	178	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.0%	0.0%	7.9%	84.3%	0.0%	0.0%	0.0%	0.6%
1998	104	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	1.9%	91.3%	0.0%	1.0%	0.0%	2.9%
1999	16	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	62.5%	0.0%	0.0%	0.0%	25.0%
2000	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2001	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2005	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2006	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2007	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979-2008	423	0.0%	0.0%	0.0%	0.0%	0.1%	6.3%	0.9%	0.1%	1.8%	0.0%	1.0%	0.0%	4.7%	0.0%	0.2%	17.5%	57.1%	0.0%	0.4%	0.0%	10.0%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	595	0.0%	0.0%	0.0%	0.0%	0.1%	7.7%	1.5%	0.2%	2.7%	0.0%	1.6%	0.0%	6.7%	0.0%	0.3%	26.7%	40.5%	0.0%	0.5%	0.0%	11.5%
1996-1998	215	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	2.3%	0.0%	0.0%	4.7%	88.5%	0.0%	0.4%	0.0%	2.0%
1999-2008	16	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	62.5%	0.0%	0.0%	0.0%	25.0%

Appendix C.68. Percent distribution of Squaxin Pens Fall Yearling total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	1742	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	0.6%	0.1%	0.7%	0.0%	1.1%	0.0%	4.2%	0.0%	0.4%	32.0%	54.9%	0.0%	0.5%	0.1%	2.1%
1991	992	0.0%	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	0.5%	1.1%	0.0%	0.5%	0.0%	8.9%	0.0%	0.3%	30.9%	50.4%	0.0%	0.0%	0.0%	3.0%
1992	964	0.0%	0.0%	0.0%	0.0%	0.4%	2.0%	0.6%	0.6%	2.4%	0.0%	1.2%	0.0%	6.0%	0.0%	0.4%	21.2%	60.9%	0.0%	0.9%	0.0%	3.3%
1993	392	0.0%	0.0%	0.0%	0.0%	0.0%	10.2%	2.0%	0.0%	5.9%	0.0%	2.0%	0.0%	13.3%	0.0%	0.5%	2.6%	50.5%	0.0%	1.0%	0.0%	12.0%
1994	180	0.0%	0.0%	0.0%	0.0%	0.0%	25.6%	5.0%	0.0%	6.1%	0.0%	4.4%	0.0%	6.7%	0.0%	0.0%	21.7%	10.0%	0.0%	0.0%	0.0%	20.6%
1995	228	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	22.4%	71.1%	0.0%	0.0%	0.0%	5.7%
1996	440	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	5.0%	90.0%	0.0%	0.2%	0.0%	2.0%
1997	236	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	6.4%	86.9%	0.0%	0.0%	0.0%	0.4%
1998	129	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	0.0%	0.0%	1.6%	93.0%	0.0%	0.8%	0.0%	2.3%
1999	196	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.5%	0.0%	0.5%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.5%	93.4%	0.0%	0.0%	0.0%	2.0%
2000	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2001	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2005	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2006	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2007	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979-2008	550	0.0%	0.0%	0.0%	0.0%	0.0%	5.2%	0.9%	0.1%	1.9%	0.0%	0.9%	0.0%	4.5%	0.0%	0.2%	14.4%	66.1%	0.0%	0.3%	0.0%	5.3%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	750	0.0%	0.0%	0.0%	0.0%	0.1%	7.6%	1.4%	0.2%	2.8%	0.0%	1.6%	0.0%	6.5%	0.0%	0.3%	21.8%	49.6%	0.0%	0.4%	0.0%	7.8%
1996-1998	268	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	1.8%	0.0%	0.0%	4.3%	90.0%	0.0%	0.3%	0.0%	1.6%
1999-2008	196	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.5%	0.0%	0.5%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.5%	93.4%	0.0%	0.0%	0.0%	2.0%

Appendix C.69. Percent distribution of Salmon River reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	1163	25 7%	0 2%	0 6%	13 0%	0 0%	9 5%	0 0%	0 0%	0 0%	1 4%	1 1%	0 0%	1 1%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	14 9%	32 4%
1981	1103	18 1%	0 0%	0 4%	23 4%	0 0%	3 5%	0 5%	0 0%	0 0%	0 5%	2 3%	0 0%	0 8%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	17 8%	32 1%
1982	904	7 6%	1 1%	0 7%	10 4%	0 0%	5 1%	0 0%	0 0%	0 0%	0 8%	0 6%	0 0%	1 9%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	25 3%	45 8%
1983	660	15 0%	0 5%	0 0%	14 7%	0 0%	7 7%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	21 7%	39 4%
1984	764	10 6%	0 0%	0 0%	17 8%	0 0%	3 4%	0 0%	0 0%	0 0%	3 5%	1 2%	0 0%	0 3%	0 0%	0 3%	0 0%	0 0%	0 0%	0 3%	20 5%	42 1%
1985	630	12 5%	6 8%	0 0%	16 5%	0 0%	1 6%	0 0%	0 0%	0 0%	1 1%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	20 2%	41 0%
1986	541	14 4%	0 0%	0 0%	12 8%	0 0%	2 0%	0 0%	0 0%	0 0%	4 4%	0 6%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	16 8%	48 4%
1987	728	10 3%	0 0%	0 0%	15 1%	0 0%	2 3%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	2 6%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	23 8%	44 4%
1988	1184	9 5%	0 0%	0 0%	6 4%	0 0%	3 9%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 8%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	14 6%	62 7%
1989	1142	8 4%	0 0%	0 0%	11 4%	0 0%	3 9%	0 0%	0 0%	0 0%	0 0%	1 4%	0 0%	3 4%	0 0%	0 4%	0 0%	0 3%	0 0%	0 0%	24 0%	46 8%
1990	1473	11 9%	0 7%	0 0%	10 7%	1 3%	7 8%	0 0%	0 0%	0 0%	0 3%	1 0%	0 0%	3 1%	0 0%	1 6%	0 0%	0 0%	0 0%	0 0%	23 6%	38 1%
1991	2442	18 4%	0 0%	0 5%	15 2%	0 8%	5 8%	0 0%	0 0%	0 0%	0 1%	0 7%	0 0%	0 2%	0 0%	0 2%	0 0%	0 2%	0 0%	0 0%	24 5%	33 4%
1992	2804	2 6%	0 6%	0 0%	6 6%	1 8%	14 8%	0 0%	0 0%	0 0%	0 8%	0 4%	0 0%	1 8%	0 0%	0 5%	0 0%	0 2%	0 0%	0 0%	15 3%	54 5%
1993	2182	7 9%	0 2%	0 2%	15 8%	1 1%	18 8%	0 0%	0 0%	0 0%	0 2%	0 5%	0 0%	3 3%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	19 8%	31 9%
1994	3958	9 0%	0 2%	1 0%	15 3%	2 2%	4 9%	0 0%	0 0%	0 0%	0 2%	0 1%	0 0%	1 5%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	17 8%	47 3%
1995	3899	6 7%	0 2%	0 3%	4 5%	0 9%	0 8%	0 2%	0 0%	0 0%	0 1%	0 1%	0 0%	0 2%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	29 8%	56 2%
1996	1930	11 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 7%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	51 7%	31 5%
1997	3971	27 7%	0 0%	1 6%	3 3%	0 4%	0 2%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	1 4%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	19 0%	46 1%
1998	2877	10 3%	0 4%	0 4%	11 0%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	1 0%	0 0%	0 0%	0 0%	0 1%	30 8%	44 3%
1999	2053	12 0%	0 4%	0 0%	4 4%	4 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	33 6%	43 8%
2000	2648	12 7%	0 0%	0 5%	2 9%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	19 6%	61 4%
2001	3591	12 3%	0 0%	0 7%	3 3%	1 3%	0 4%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	2 5%	0 0%	1 5%	0 0%	0 0%	0 0%	0 1%	25 2%	52 5%
2002	4745	17 6%	0 0%	0 9%	7 1%	2 1%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	1 9%	0 0%	0 0%	0 0%	0 0%	32 8%	36 1%
2003	4643	12 9%	0 6%	0 6%	5 9%	1 6%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	0 0%	2 8%	0 0%	0 0%	0 0%	0 0%	32 5%	41 4%
2004	4957	18 1%	0 8%	0 8%	7 3%	3 6%	2 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	22 9%	42 7%
2005	4539	19 7%	0 0%	1 2%	8 5%	4 8%	2 6%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 3%	0 1%	1 3%	0 0%	0 0%	0 0%	0 0%	30 3%	30 0%
2006	1848	24 4%	0 0%	1 7%	12 3%	5 4%	2 1%	2 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 1%	3 0%	0 0%	0 0%	0 0%	0 1%	26 9%	20 8%
2007	1375	11 7%	0 0%	0 8%	6 0%	3 0%	0 1%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	33 7%	44 1%
2008	689	8 3%	0 0%	0 0%	4 4%	4 5%	2 9%	2 9%	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	1 2%	0 1%	0 0%	0 0%	0 0%	14 4%	59 9%
1979-2008	2257	13 4%	0 4%	0 4%	9 9%	1 4%	3 7%	0 2%	0 0%	0 0%	0 5%	0 3%	0 0%	1 3%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	24 3%	43 1%
1979-1984	919	15 4%	0 3%	0 3%	15 9%	0 0%	5 8%	0 1%	0 0%	0 0%	1 3%	1 0%	0 0%	0 8%	0 0%	0 5%	0 0%	0 0%	0 0%	0 1%	20 0%	38 4%
1985-1995	1908	10 2%	0 8%	0 2%	11 8%	0 7%	6 1%	0 0%	0 0%	0 0%	0 7%	0 5%	0 0%	1 5%	0 0%	0 6%	0 0%	0 1%	0 0%	0 0%	20 9%	45 9%
1996-1998	2926	16 4%	0 1%	0 7%	4 8%	0 6%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	33 8%	40 6%
1999-2008	3109	15 0%	0 2%	0 7%	6 2%	3 2%	1 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	27 2%	43 3%

Appendix C.70. Percent distribution of Salmon River total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	1279	25 7%	0 2%	0 6%	15 5%	0 0%	10 0%	0 0%	0 0%	0 0%	1 4%	1 1%	0 0%	1 3%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	14 5%	29 5%
1981	1211	19 0%	0 0%	0 3%	24 8%	0 0%	4 1%	0 4%	0 0%	0 0%	0 8%	2 2%	0 0%	0 9%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	17 5%	29 2%
1982	1015	10 5%	1 1%	0 8%	11 7%	0 0%	5 9%	0 0%	0 0%	0 0%	0 9%	0 5%	0 0%	2 1%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	24 9%	40 8%
1983	753	20 1%	0 5%	0 0%	15 8%	0 0%	7 7%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	20 3%	34 5%
1984	838	13 4%	0 0%	0 0%	18 4%	0 0%	3 6%	0 0%	0 0%	0 0%	3 3%	1 1%	0 0%	0 2%	0 0%	0 2%	0 0%	0 0%	0 0%	0 2%	21 1%	38 4%
1985	763	15 3%	10 9%	0 0%	15 7%	0 0%	1 7%	0 0%	0 0%	0 0%	1 2%	0 3%	0 0%	0 1%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	20 8%	33 8%
1986	647	20 1%	0 0%	0 0%	14 2%	0 0%	2 9%	0 0%	0 0%	0 0%	4 2%	0 5%	0 0%	0 5%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	16 5%	40 5%
1987	841	17 1%	0 0%	0 0%	15 5%	0 0%	2 7%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	2 5%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	22 2%	38 4%
1988	1395	15 6%	0 0%	0 0%	8 7%	0 0%	5 2%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 9%	0 0%	1 6%	0 0%	0 0%	0 0%	0 0%	13 8%	53 2%
1989	1510	17 2%	0 0%	0 0%	16 2%	0 0%	4 6%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	3 3%	0 0%	0 4%	0 0%	0 3%	0 0%	0 0%	21 4%	35 4%
1990	1820	18 0%	1 6%	0 0%	13 0%	1 2%	8 0%	0 0%	0 0%	0 0%	0 3%	0 8%	0 0%	3 0%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	21 8%	30 8%
1991	2905	23 9%	0 0%	0 6%	16 4%	0 8%	6 1%	0 0%	0 0%	0 0%	0 1%	0 7%	0 0%	0 2%	0 0%	0 2%	0 0%	0 2%	0 0%	0 0%	22 8%	28 1%
1992	3301	4 5%	2 9%	0 0%	8 4%	2 1%	16 9%	0 0%	0 0%	0 0%	0 9%	0 3%	0 0%	2 0%	0 0%	0 5%	0 0%	0 2%	0 0%	0 0%	14 9%	46 3%
1993	2665	10 9%	0 6%	0 2%	17 9%	1 0%	20 1%	0 0%	0 0%	0 0%	0 2%	0 5%	0 0%	3 3%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	19 2%	26 1%
1994	4552	15 4%	0 4%	1 1%	15 6%	2 2%	5 0%	0 0%	0 0%	0 0%	0 2%	0 1%	0 0%	1 4%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	17 0%	41 1%
1995	4440	10 1%	0 4%	0 4%	6 6%	1 1%	1 2%	0 2%	0 0%	0 0%	0 2%	0 1%	0 0%	0 2%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	30 2%	49 3%
1996	2452	19 7%	0 0%	0 0%	2 7%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 9%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	47 3%	24 8%
1997	4401	32 1%	0 0%	1 7%	3 4%	0 4%	0 2%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	1 5%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	18 7%	41 6%
1998	3112	11 6%	0 7%	0 4%	11 8%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	1 0%	0 0%	0 0%	0 0%	0 1%	31 4%	40 9%
1999	2406	18 0%	0 5%	0 0%	4 8%	5 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	32 5%	37 4%
2000	2969	17 3%	0 0%	0 7%	3 4%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	20 5%	54 7%
2001	4041	16 6%	0 0%	1 0%	3 8%	1 7%	0 4%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	2 8%	0 0%	1 6%	0 0%	0 0%	0 0%	0 1%	25 2%	46 7%
2002	5587	21 9%	0 0%	1 1%	7 9%	2 5%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%	1 8%	0 0%	0 0%	0 0%	0 0%	32 4%	30 7%
2003	5155	15 3%	1 0%	0 7%	6 6%	1 9%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%	2 9%	0 0%	0 0%	0 0%	0 0%	32 6%	37 3%
2004	5514	20 6%	1 4%	0 9%	7 8%	4 6%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	22 7%	38 4%
2005	4976	21 2%	0 0%	1 3%	8 9%	5 5%	2 5%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	0 1%	1 3%	0 0%	0 0%	0 0%	0 0%	30 3%	27 4%
2006	2027	26 0%	0 0%	1 7%	12 3%	5 7%	1 9%	2 3%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 1%	2 9%	0 0%	0 0%	0 0%	0 0%	26 9%	18 9%
2007	1560	14 3%	0 0%	1 2%	6 7%	4 1%	0 1%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	34 0%	39 1%
2008	868	19 0%	0 0%	0 0%	7 1%	4 1%	2 6%	2 8%	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	1 0%	0 1%	0 0%	0 0%	0 0%	14 1%	47 6%
1979-2008	2566	17 6%	0 8%	0 5%	11 1%	1 7%	4 0%	0 2%	0 0%	0 0%	0 5%	0 3%	0 0%	1 3%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	23 7%	37 3%
1979-1984	1019	17 7%	0 4%	0 3%	17 2%	0 0%	6 3%	0 1%	0 0%	0 0%	1 4%	1 0%	0 0%	0 9%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	19 7%	34 5%
1985-1995	2258	15 3%	1 5%	0 2%	13 5%	0 8%	6 8%	0 0%	0 0%	0 0%	0 8%	0 4%	0 0%	1 6%	0 0%	0 6%	0 0%	0 1%	0 0%	0 0%	20 1%	38 5%
1996-1998	3322	21 1%	0 2%	0 7%	6 0%	0 8%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	32 5%	35 8%
1999-2008	3509	19 0%	0 3%	0 8%	6 9%	3 7%	1 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	27 1%	37 8%

Appendix C.71. Percent distribution of Skagit Summer Fingerling reported catch among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1997	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1998	179	3.4%	0.0%	0.0%	0.0%	1.1%	1.7%	6.7%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	84.4%
1999	168	7.1%	2.4%	0.0%	0.0%	0.0%	0.0%	20.2%	0.0%	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	61.9%
2000	219	5.9%	0.9%	0.0%	0.0%	0.0%	2.3%	7.8%	0.0%	6.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	5.5%	0.0%	0.0%	0.0%	68.5%
2001	771	6.9%	1.8%	0.9%	0.0%	0.9%	9.1%	6.2%	0.0%	8.6%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.3%	1.3%	0.0%	0.5%	0.0%	63.4%
2002	2151	12.7%	0.0%	0.8%	1.4%	1.1%	6.5%	1.7%	0.0%	3.9%	0.0%	0.3%	0.0%	0.1%	0.0%	0.0%	0.2%	0.0%	0.0%	0.7%	0.0%	70.5%
2003	829	6.3%	0.1%	0.0%	3.9%	2.3%	11.0%	3.7%	0.0%	6.0%	0.0%	0.1%	0.0%	0.4%	0.0%	0.4%	0.5%	0.4%	0.0%	0.2%	0.0%	64.8%
2004	798	5.0%	0.0%	0.0%	2.4%	0.5%	10.8%	1.3%	0.0%	0.8%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	1.0%	0.4%	0.0%	0.0%	0.0%	77.2%
2005	911	7.2%	0.2%	0.5%	1.4%	4.5%	7.0%	4.0%	0.0%	1.8%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.1%	0.7%	0.0%	3.7%	0.2%	68.3%
2006	1349	3.1%	1.0%	0.1%	0.6%	2.7%	4.2%	3.0%	0.0%	2.0%	0.0%	0.1%	0.0%	0.4%	0.0%	0.0%	0.2%	0.5%	0.0%	3.0%	0.0%	78.9%
2007	1415	5.4%	0.4%	0.1%	0.9%	0.9%	8.4%	3.4%	0.0%	0.6%	0.0%	0.1%	0.0%	0.8%	0.0%	0.0%	0.2%	0.4%	0.0%	2.8%	0.0%	75.5%
2008	1062	4.5%	0.0%	0.0%	1.3%	1.2%	5.1%	5.2%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.8%	0.0%	18.4%	0.0%	61.6%
1979-2008	896	6.1%	0.6%	0.2%	1.1%	1.4%	6.0%	5.7%	0.0%	3.7%	0.0%	0.1%	0.0%	0.2%	0.0%	0.0%	0.5%	1.0%	0.0%	2.8%	0.0%	70.5%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1996-1998	179	3.4%	0.0%	0.0%	0.0%	1.1%	1.7%	6.7%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	84.4%
1999-2008	967	6.4%	0.7%	0.3%	1.2%	1.4%	6.4%	5.6%	0.0%	3.9%	0.0%	0.1%	0.0%	0.3%	0.0%	0.0%	0.5%	1.0%	0.0%	3.1%	0.0%	69.1%

Appendix C.72. Percent distribution of Skagit Summer Fingerling total fishing mortalities among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1997	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1998	183	3.8%	0.0%	0.0%	0.0%	1.1%	1.6%	6.6%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	82.5%
1999	187	10.7%	3.2%	0.0%	0.0%	0.0%	0.0%	20.9%	0.0%	8.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	55.6%
2000	268	10.8%	0.7%	0.0%	0.0%	0.0%	3.4%	7.8%	0.0%	7.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	11.9%	0.0%	0.0%	0.0%	56.0%
2001	857	9.5%	3.0%	1.1%	0.0%	1.1%	8.6%	6.5%	0.0%	9.7%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.2%	2.7%	0.0%	0.5%	0.0%	57.1%
2002	2276	13.3%	0.0%	0.9%	1.5%	1.4%	6.4%	1.8%	0.0%	4.2%	0.0%	2.9%	0.0%	0.1%	0.0%	0.0%	0.2%	0.0%	0.0%	0.7%	0.0%	66.6%
2003	875	7.0%	0.2%	0.0%	4.2%	3.0%	11.0%	4.6%	0.0%	6.6%	0.0%	0.2%	0.0%	0.3%	0.0%	0.3%	0.5%	0.5%	0.0%	0.2%	0.0%	61.4%
2004	825	5.7%	0.0%	0.0%	2.9%	0.7%	11.3%	1.5%	0.0%	0.8%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	1.0%	0.6%	0.0%	0.0%	0.0%	74.7%
2005	967	8.6%	0.3%	0.6%	1.7%	5.7%	7.0%	4.4%	0.0%	2.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.1%	1.0%	0.0%	3.6%	0.2%	64.3%
2006	1396	3.6%	1.3%	0.2%	0.6%	3.2%	4.3%	3.4%	0.0%	2.4%	0.0%	0.1%	0.0%	0.5%	0.0%	0.0%	0.2%	0.8%	0.0%	3.0%	0.0%	76.3%
2007	1474	6.6%	0.7%	0.2%	1.0%	1.1%	8.8%	3.7%	0.0%	0.7%	0.0%	0.1%	0.0%	0.9%	0.0%	0.0%	0.2%	0.6%	0.0%	2.8%	0.0%	72.5%
2008	1119	5.9%	0.0%	0.0%	1.5%	1.4%	5.4%	5.9%	0.0%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	1.2%	0.0%	18.0%	0.0%	58.4%
1979-2008	948	7.6%	0.9%	0.3%	1.2%	1.7%	6.2%	6.1%	0.0%	4.3%	0.0%	0.3%	0.0%	0.3%	0.0%	0.0%	0.4%	1.9%	0.0%	2.7%	0.0%	65.9%
1979-1984	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1996-1998	183	3.8%	0.0%	0.0%	0.0%	1.1%	1.6%	6.6%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	82.5%
1999-2008	1024	8.2%	0.9%	0.3%	1.4%	1.8%	6.6%	6.1%	0.0%	4.4%	0.0%	0.4%	0.0%	0.3%	0.0%	0.0%	0.5%	1.9%	0.0%	3.0%	0.0%	64.3%

Appendix C.73. Percent distribution of Stillaguamish Fall Fingerling reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	83	0.0%	0.0%	0.0%	3.6%	3.6%	7.2%	0.0%	0.0%	15.7%	19.3%	26.5%	0.0%	0.0%	0.0%	0.0%	4.8%	19.3%	0.0%	0.0%	0.0%	0.0%
1985	97	7.2%	0.0%	0.0%	4.1%	0.0%	29.9%	9.3%	0.0%	10.3%	0.0%	15.5%	0.0%	0.0%	0.0%	0.0%	9.3%	13.4%	0.0%	0.0%	0.0%	1.0%
1986	89	4.5%	0.0%	0.0%	0.0%	0.0%	32.6%	0.0%	0.0%	20.2%	0.0%	4.5%	0.0%	0.0%	0.0%	0.0%	16.9%	21.3%	0.0%	0.0%	0.0%	0.0%
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	339	0.6%	0.0%	0.0%	0.9%	0.0%	21.2%	6.5%	0.6%	9.4%	8.0%	10.9%	0.0%	5.6%	0.0%	0.0%	7.4%	13.6%	0.0%	2.1%	0.0%	13.3%
1991	914	0.2%	0.0%	0.0%	0.0%	0.4%	4.7%	2.1%	0.0%	3.6%	0.0%	1.0%	0.0%	4.3%	0.0%	0.0%	3.7%	6.5%	0.0%	1.9%	0.0%	71.7%
1992	636	0.0%	0.0%	0.0%	0.5%	0.0%	18.1%	4.2%	0.0%	5.3%	0.0%	5.2%	0.0%	6.0%	0.0%	0.0%	10.2%	29.6%	0.0%	2.4%	0.0%	18.6%
1993	816	0.0%	0.0%	0.0%	0.6%	1.3%	11.3%	9.4%	0.2%	8.3%	0.4%	2.3%	0.0%	5.3%	0.0%	0.4%	0.5%	20.2%	0.0%	1.0%	0.0%	38.7%
1994	451	2.4%	0.0%	0.0%	0.7%	0.0%	6.7%	5.3%	0.0%	7.8%	0.0%	2.2%	0.0%	0.0%	0.0%	0.0%	2.2%	5.8%	0.0%	0.2%	0.0%	66.7%
1995	378	2.4%	0.0%	0.0%	0.0%	0.0%	2.4%	9.8%	0.0%	4.2%	0.0%	10.8%	0.0%	1.1%	0.0%	0.0%	2.1%	14.0%	0.0%	0.3%	0.0%	52.9%
1996	679	0.9%	0.0%	0.0%	0.0%	1.0%	0.0%	7.1%	0.0%	6.0%	0.0%	7.2%	0.0%	0.0%	0.0%	0.0%	0.0%	18.7%	0.0%	0.3%	0.0%	58.8%
1997	776	8.9%	0.4%	0.0%	0.5%	1.0%	6.1%	7.0%	0.0%	4.6%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	1.4%	15.1%	0.0%	0.5%	0.0%	53.2%
1998	1040	9.3%	0.2%	0.3%	1.0%	0.5%	1.0%	2.2%	0.0%	1.6%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	1.4%	1.9%	0.0%	0.3%	0.0%	80.2%
1999	658	0.6%	1.5%	0.0%	0.0%	0.3%	2.9%	7.3%	0.0%	5.6%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.3%	2.4%	0.0%	0.2%	0.0%	78.4%
2000	955	3.8%	0.0%	0.0%	0.0%	0.0%	6.0%	1.3%	0.0%	1.5%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	1.4%	0.0%	0.1%	0.0%	85.7%
2001	286	2.1%	0.0%	0.0%	0.0%	0.0%	5.6%	4.2%	0.0%	4.5%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	1.0%	10.1%	0.0%	0.3%	0.0%	71.7%
2002	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2005	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2006	786	2.2%	0.0%	0.0%	0.0%	0.8%	11.2%	1.0%	0.0%	2.4%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	1.7%	3.2%	0.0%	0.6%	0.0%	76.3%
2007	651	0.6%	0.5%	0.0%	0.0%	0.0%	15.7%	5.8%	0.0%	8.9%	0.0%	0.5%	0.0%	1.7%	0.0%	0.0%	4.3%	4.9%	0.0%	0.6%	0.0%	56.5%
2008	1106	1.8%	0.0%	0.0%	0.0%	0.0%	4.9%	5.1%	0.0%	4.7%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.5%	8.6%	0.0%	3.4%	0.0%	70.9%
1979-2008	597	2.6%	0.1%	0.0%	0.7%	0.5%	10.4%	4.9%	0.0%	6.9%	1.5%	4.9%	0.0%	1.4%	0.0%	0.0%	3.8%	11.7%	0.0%	0.8%	0.0%	49.7%
1979-1984	83	0.0%	0.0%	0.0%	3.6%	3.6%	7.2%	0.0%	0.0%	15.7%	19.3%	26.5%	0.0%	0.0%	0.0%	0.0%	4.8%	19.3%	0.0%	0.0%	0.0%	0.0%
1985-1995	465	2.2%	0.0%	0.0%	0.8%	0.2%	15.9%	5.8%	0.1%	8.7%	1.0%	6.6%	0.0%	2.8%	0.0%	0.0%	6.5%	15.5%	0.0%	1.0%	0.0%	32.9%
1996-1998	832	6.4%	0.2%	0.1%	0.5%	0.8%	2.3%	5.4%	0.0%	4.1%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	1.0%	11.9%	0.0%	0.4%	0.0%	64.1%
1999-2008	740	1.8%	0.3%	0.0%	0.0%	0.2%	7.7%	4.1%	0.0%	4.6%	0.0%	0.2%	0.0%	0.5%	0.0%	0.0%	1.3%	5.1%	0.0%	0.9%	0.0%	73.3%

Appendix C.74. Percent distribution of Stillaguamish Fall Fingerling total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	106	0.0%	0.0%	0.0%	3.8%	2.8%	10.4%	0.0%	0.0%	13.2%	17.0%	21.7%	0.0%	0.0%	0.0%	0.0%	4.7%	26.4%	0.0%	0.0%	0.0%	0.0%
1985	112	6.3%	0.0%	0.0%	4.5%	0.0%	30.4%	8.9%	0.0%	8.9%	0.0%	13.4%	0.0%	0.0%	0.0%	0.0%	8.9%	17.9%	0.0%	0.0%	0.0%	0.9%
1986	96	5.2%	0.0%	0.0%	0.0%	0.0%	32.3%	0.0%	0.0%	20.8%	0.0%	4.2%	0.0%	0.0%	0.0%	0.0%	15.6%	21.9%	0.0%	0.0%	0.0%	0.0%
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	411	0.7%	0.0%	0.0%	1.0%	0.2%	21.4%	6.1%	0.7%	9.7%	7.8%	9.5%	0.0%	6.6%	0.0%	0.0%	7.1%	16.5%	0.0%	1.7%	0.0%	10.9%
1991	968	0.2%	0.0%	0.0%	0.0%	0.4%	5.5%	2.3%	0.0%	4.2%	0.0%	0.9%	0.0%	4.9%	0.0%	0.0%	3.7%	8.4%	0.0%	1.9%	0.0%	67.7%
1992	895	0.0%	0.0%	0.0%	0.4%	0.0%	17.9%	3.7%	0.0%	5.3%	0.0%	4.1%	0.0%	5.7%	0.0%	0.0%	9.1%	38.9%	0.0%	1.8%	0.0%	13.2%
1993	927	0.0%	0.0%	0.0%	0.9%	1.3%	13.5%	9.1%	0.3%	9.5%	0.5%	2.2%	0.0%	5.8%	0.0%	0.3%	0.4%	21.3%	0.0%	0.9%	0.0%	34.1%
1994	477	2.9%	0.0%	0.0%	0.6%	0.0%	7.3%	5.7%	0.0%	8.6%	0.0%	2.3%	0.0%	0.0%	0.0%	0.0%	2.1%	7.1%	0.0%	0.2%	0.0%	63.1%
1995	500	2.4%	0.0%	0.0%	0.0%	0.0%	3.8%	9.0%	0.0%	4.4%	0.0%	12.6%	0.0%	0.8%	0.0%	0.0%	2.0%	24.8%	0.0%	0.2%	0.0%	40.0%
1996	817	1.1%	0.0%	0.0%	0.0%	0.9%	1.1%	6.9%	0.0%	6.5%	0.0%	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%	26.2%	0.0%	0.2%	0.0%	48.8%
1997	862	9.6%	0.7%	0.0%	0.5%	1.3%	6.7%	6.7%	0.0%	5.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	1.3%	18.1%	0.0%	0.5%	0.0%	47.9%
1998	1092	10.5%	0.4%	0.4%	1.6%	0.7%	0.9%	2.5%	0.0%	1.8%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	1.5%	2.9%	0.0%	0.3%	0.0%	76.4%
1999	703	0.7%	4.6%	0.0%	0.0%	0.3%	2.8%	7.5%	0.0%	6.3%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.3%	3.6%	0.0%	0.1%	0.0%	73.4%
2000	980	4.5%	0.0%	0.0%	0.0%	0.0%	6.1%	1.4%	0.0%	1.7%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	2.2%	0.0%	0.1%	0.0%	83.5%
2001	308	1.9%	0.0%	0.0%	0.0%	0.0%	5.2%	4.2%	0.0%	4.5%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	1.0%	15.9%	0.0%	0.3%	0.0%	66.6%
2002	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2005	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2006	825	2.4%	0.0%	0.0%	0.0%	0.8%	11.6%	1.2%	0.0%	3.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	1.7%	5.1%	0.0%	0.6%	0.0%	72.7%
2007	777	1.2%	0.8%	0.0%	0.0%	0.0%	15.6%	6.2%	0.0%	10.3%	0.0%	0.9%	0.0%	1.8%	0.0%	0.0%	4.4%	11.1%	0.0%	0.5%	0.0%	47.4%
2008	1169	2.7%	0.0%	0.0%	0.0%	0.0%	4.7%	5.4%	0.0%	5.7%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.5%	10.4%	0.0%	3.4%	0.0%	67.1%
1979-2008	668	2.9%	0.4%	0.0%	0.7%	0.5%	11.0%	4.8%	0.1%	7.2%	1.4%	4.6%	0.0%	1.5%	0.0%	0.0%	3.6%	15.5%	0.0%	0.7%	0.0%	45.2%
1979-1984	106	0.0%	0.0%	0.0%	3.8%	2.8%	10.4%	0.0%	0.0%	13.2%	17.0%	21.7%	0.0%	0.0%	0.0%	0.0%	4.7%	26.4%	0.0%	0.0%	0.0%	0.0%
1985-1995	548	2.2%	0.0%	0.0%	0.9%	0.2%	16.5%	5.6%	0.1%	8.9%	1.0%	6.1%	0.0%	3.0%	0.0%	0.0%	6.1%	19.6%	0.0%	0.8%	0.0%	28.7%
1996-1998	924	7.1%	0.4%	0.1%	0.7%	1.0%	2.9%	5.4%	0.0%	4.4%	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.9%	15.7%	0.0%	0.3%	0.0%	57.7%
1999-2008	794	2.2%	0.9%	0.0%	0.0%	0.2%	7.7%	4.3%	0.0%	5.3%	0.0%	0.2%	0.0%	0.6%	0.0%	0.0%	1.3%	8.1%	0.0%	0.9%	0.0%	68.4%

Appendix C.75. Percent distribution of Columbia River Summers reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	163	11.0%	0.0%	1.2%	6.7%	0.0%	16.6%	0.0%	3.1%	4.9%	2.5%	11.7%	0.0%	0.0%	0.0%	4.9%	0.0%	0.0%	0.0%	4.3%	0.0%	33.1%
1980	330	33.0%	0.0%	0.9%	8.8%	0.0%	17.0%	0.0%	0.0%	0.0%	3.9%	1.2%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	33.0%
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	123	13.8%	0.0%	0.0%	5.7%	3.3%	0.0%	0.0%	0.0%	0.0%	4.9%	4.1%	0.0%	20.3%	0.0%	0.0%	0.0%	0.0%	0.0%	15.4%	0.0%	32.5%
1988	261	1.1%	0.8%	0.0%	7.7%	1.9%	16.1%	4.2%	0.0%	0.0%	0.0%	9.2%	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	15.3%	3.1%	37.2%
1989	627	4.8%	0.5%	0.6%	5.1%	0.6%	14.8%	2.4%	0.0%	1.4%	0.6%	2.6%	0.0%	14.4%	0.0%	2.6%	0.0%	0.0%	0.0%	8.5%	0.0%	41.1%
1990	843	9.7%	0.0%	0.0%	6.6%	0.0%	19.5%	0.0%	0.0%	0.6%	1.1%	1.7%	0.0%	5.7%	0.0%	2.3%	0.0%	0.0%	0.0%	10.6%	0.2%	41.9%
1991	735	3.9%	0.0%	0.0%	2.2%	0.0%	5.6%	0.7%	0.0%	0.0%	0.5%	2.7%	0.0%	3.3%	0.0%	1.8%	0.0%	0.0%	0.0%	3.9%	0.4%	75.0%
1992	282	14.5%	0.0%	0.0%	3.5%	0.0%	15.2%	0.0%	0.0%	0.7%	2.1%	1.1%	0.0%	6.7%	0.0%	0.0%	0.0%	1.4%	0.0%	1.4%	0.0%	53.2%
1993	210	7.1%	0.0%	0.0%	1.4%	0.0%	14.3%	1.9%	0.0%	0.0%	0.0%	2.4%	0.0%	5.2%	0.0%	1.4%	0.0%	0.0%	0.0%	3.3%	0.0%	62.9%
1994	37	13.5%	0.0%	0.0%	0.0%	13.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.8%	0.0%	62.2%
1995	159	2.5%	0.0%	0.0%	0.0%	0.0%	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	89.9%
1996	355	13.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	0.0%	2.8%	0.0%	2.8%	0.0%	0.8%	0.0%	1.1%	0.0%	3.9%	2.3%	70.1%
1997	1292	7.7%	0.1%	3.3%	0.2%	1.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	2.9%	0.0%	0.0%	0.0%	0.2%	0.0%	1.2%	0.5%	81.0%
1998	1474	8.5%	0.1%	0.9%	0.5%	1.8%	0.0%	0.5%	0.0%	0.0%	0.0%	0.1%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	0.9%	79.9%
1999	810	10.2%	2.6%	1.9%	0.6%	2.1%	0.6%	5.1%	0.0%	0.0%	0.0%	0.6%	0.0%	8.6%	0.0%	0.5%	0.0%	0.0%	0.0%	1.2%	3.0%	53.0%
2000	2371	21.5%	1.3%	2.6%	0.5%	2.2%	4.6%	5.3%	0.0%	0.6%	0.0%	0.4%	0.0%	3.0%	0.0%	1.4%	0.0%	0.2%	0.0%	1.0%	2.3%	52.7%
2001	6701	13.2%	2.6%	1.4%	0.5%	1.4%	13.2%	2.5%	0.0%	0.2%	0.0%	0.0%	0.0%	16.5%	0.0%	3.7%	0.0%	0.6%	0.0%	0.7%	1.6%	41.6%
2002	10323	21.[illegible]%	0.0%	1.4%	12.4%	1.7%	15.3%	1.2%	0.0%	0.1%	0.0%	0.0%	0.0%	8.5%	0.0%	3.5%	0.0%	0.0%	0.0%	1.1%	2.3%	30.6%
2003	7199	25.9%	0.4%	1.0%	11.1%	2.1%	12.3%	0.3%	0.0%	0.1%	0.0%	0.0%	0.0%	6.5%	0.0%	1.0%	0.0%	0.1%	0.0%	2.9%	5.9%	30.6%
2004	4586	13.0%	0.3%	1.1%	5.0%	1.3%	12.4%	1.3%	0.0%	0.2%	0.0%	0.0%	0.0%	10.2%	0.0%	1.5%	0.0%	0.2%	0.0%	7.8%	14.5%	31.4%
2005	9604	8.3%	0.0%	0.7%	5.6%	2.1%	10.4%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	5.9%	0.0%	0.5%	0.0%	0.0%	0.0%	7.0%	7.6%	50.9%
2006	4382	9.0%	0.0%	0.4%	2.9%	0.9%	9.2%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	0.0%	0.3%	0.1%	0.1%	0.0%	11.1%	8.1%	54.5%
2007	6147	7.1%	0.6%	0.8%	0.9%	1.3%	4.5%	0.8%	0.0%	0.1%	0.0%	0.0%	0.0%	2.7%	0.0%	0.3%	0.0%	0.1%	0.0%	7.3%	8.3%	65.1%
2008	1677	5.5%	0.3%	0.4%	0.9%	0.2%	3.9%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.2%	0.0%	0.2%	0.0%	20.5%	8.8%	54.4%
1979-2008	2529	11.7%	0.4%	0.8%	3.7%	1.6%	8.8%	1.3%	0.1%	0.5%	0.7%	1.7%	0.0%	5.7%	0.0%	1.1%	0.1%	0.2%	0.0%	6.0%	2.9%	52.8%
1979-1984	246	22.0%	0.0%	1.1%	7.8%	0.0%	16.8%	0.0%	1.5%	2.5%	3.2%	6.4%	0.0%	0.8%	0.0%	2.5%	0.0%	0.0%	0.0%	2.5%	0.0%	33.1%
1985-1995	364	7.9%	0.1%	0.1%	3.6%	2.1%	10.0%	1.0%	0.0%	0.3%	1.0%	2.6%	0.0%	6.8%	0.0%	0.9%	0.1%	0.2%	0.0%	7.7%	0.4%	55.1%
1996-1998	1040	9.9%	0.2%	1.4%	0.2%	0.9%	0.6%	0.2%	0.0%	0.8%	0.0%	1.0%	0.0%	2.5%	0.0%	0.3%	0.0%	0.4%	0.0%	3.4%	1.2%	77.0%
1999-2008	5381	13.6%	0.8%	1.2%	4.1%	1.5%	8.7%	2.1%	0.0%	0.1%	0.0%	0.1%	0.0%	6.6%	0.0%	1.3%	0.0%	0.1%	0.0%	6.1%	6.2%	47.5%

Appendix C.76. Percent distribution of Columbia River Summers total fishing mortalities among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	196	13 8%	0 0%	1 0%	8 7%	0 0%	19 4%	0 0%	2 6%	4 6%	4 1%	10 2%	0 0%	0 5%	0 0%	4 1%	0 0%	0 0%	0 0%	3 6%	0 0%	27 6%
1980	347	32 6%	0 0%	0 9%	9 2%	0 0%	18 2%	0 0%	0 0%	0 0%	4 3%	1 2%	0 0%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	31 4%
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	160	16 3%	0 0%	0 0%	8 1%	2 5%	7 5%	0 0%	0 0%	0 0%	3 8%	4 4%	0 0%	20 0%	0 0%	0 6%	0 0%	0 0%	0 0%	11 9%	0 0%	25 0%
1988	315	1 6%	1 6%	0 0%	10 2%	1 9%	21 3%	4 1%	0 0%	0 0%	0 0%	8 9%	0 0%	3 5%	0 0%	0 0%	0 0%	0 0%	0 0%	13 3%	2 9%	30 8%
1989	715	6 4%	2 4%	0 7%	5 6%	0 6%	16 5%	2 4%	0 0%	1 4%	0 7%	2 2%	0 0%	15 0%	0 0%	2 5%	0 0%	0 0%	0 0%	7 6%	0 0%	36 1%
1990	892	10 5%	0 0%	0 0%	7 6%	0 0%	20 3%	0 0%	0 0%	0 6%	1 1%	1 7%	0 0%	5 7%	0 0%	2 4%	0 0%	0 0%	0 0%	10 3%	0 2%	39 6%
1991	748	4 1%	0 0%	0 0%	2 3%	0 0%	6 1%	0 7%	0 0%	0 0%	0 5%	2 8%	0 0%	3 5%	0 0%	1 9%	0 0%	0 0%	0 0%	4 0%	0 4%	73 7%
1992	306	18 3%	0 0%	0 0%	3 6%	0 0%	15 7%	0 0%	0 0%	0 7%	2 0%	1 0%	0 0%	6 9%	0 0%	0 0%	0 0%	1 6%	0 0%	1 3%	0 0%	49 0%
1993	218	7 8%	0 0%	0 0%	1 4%	0 0%	15 6%	1 8%	0 0%	0 0%	0 0%	2 8%	0 0%	5 5%	0 0%	1 4%	0 0%	0 0%	0 0%	3 2%	0 0%	60 6%
1994	40	17 5%	0 0%	0 0%	0 0%	15 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	10 0%	0 0%	57 5%
1995	169	3 6%	0 0%	0 0%	0 0%	0 0%	6 5%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	1 8%	0 0%	0 0%	2 4%	0 0%	0 0%	0 0%	0 0%	84 6%
1996	428	20 8%	0 7%	0 0%	1 9%	0 2%	2 8%	0 0%	0 0%	2 6%	0 0%	3 0%	0 0%	2 6%	0 0%	0 7%	0 0%	1 2%	0 0%	3 3%	2 1%	58 2%
1997	1332	8 9%	0 1%	3 7%	0 2%	1 4%	2 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	3 3%	0 0%	0 0%	0 0%	0 2%	0 0%	1 1%	0 5%	78 5%
1998	1529	10 1%	0 3%	1 2%	0 5%	2 4%	0 0%	0 6%	0 0%	0 0%	0 0%	0 1%	0 0%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	4 8%	1 0%	77 0%
1999	930	14 8%	3 4%	3 2%	0 6%	2 7%	0 5%	5 3%	0 0%	0 0%	0 0%	0 6%	0 0%	9 4%	0 0%	0 5%	0 0%	0 0%	0 0%	1 1%	2 9%	54 8%
2000	2688	25 6%	1 8%	3 4%	0 6%	2 8%	4 6%	5 4%	0 0%	0 8%	0 0%	0 5%	0 0%	3 3%	0 0%	1 4%	0 1%	0 3%	0 0%	0 9%	2 2%	46 5%
2001	7407	15 6%	4 1%	1 4%	0 5%	1 7%	12 3%	2 6%	0 0%	0 2%	0 0%	0 0%	0 0%	16 9%	0 0%	3 6%	0 0%	1 1%	0 0%	0 7%	1 6%	37 8%
2002	11193	23 3%	0 0%	1 5%	12 7%	2 0%	15 1%	1 4%	0 0%	0 1%	0 0%	0 0%	0 0%	8 8%	0 0%	3 6%	0 0%	0 0%	0 0%	1 0%	2 3%	28 2%
2003	7857	27 5%	0 7%	1 1%	11 8%	2 4%	11 7%	0 3%	0 0%	0 1%	0 0%	0 0%	0 0%	6 8%	0 0%	1 0%	0 0%	0 1%	0 0%	2 7%	5 8%	28 0%
2004	4948	14 2%	0 4%	1 1%	5 4%	1 7%	12 1%	1 4%	0 0%	0 2%	0 0%	0 0%	0 0%	10 6%	0 0%	1 5%	0 0%	0 3%	0 0%	7 3%	14 7%	29 1%
2005	10033	9 2%	0 0%	0 7%	6 1%	2 6%	10 4%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	6 3%	0 0%	0 5%	0 0%	0 0%	0 0%	6 8%	7 6%	48 7%
2006	4535	9 9%	0 0%	0 4%	3 0%	1 0%	9 2%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	2 6%	0 0%	0 4%	0 2%	0 1%	0 0%	10 8%	8 5%	52 8%
2007	6337	7 9%	0 8%	0 9%	1 0%	1 6%	4 5%	0 9%	0 0%	0 1%	0 0%	0 0%	0 0%	2 8%	0 0%	0 3%	0 0%	0 1%	0 0%	7 1%	8 7%	63 2%
2008	1735	6 6%	0 5%	0 4%	0 9%	0 2%	3 9%	3 5%	0 0%	0 0%	0 0%	0 0%	0 0%	1 7%	0 0%	0 2%	0 0%	0 2%	0 0%	20 0%	9 3%	52 6%
1979-2008	2711	13 6%	0 7%	0 9%	4 3%	1 8%	9 8%	1 3%	0 1%	0 5%	0 7%	1 7%	0 0%	5 9%	0 0%	1 1%	0 1%	0 2%	0 0%	5 6%	2 9%	48 8%
1979-1984	272	23 2%	0 0%	0 9%	8 9%	0 0%	18 8%	0 0%	1 3%	2 3%	4 2%	5 7%	0 0%	1 1%	0 0%	2 0%	0 0%	0 0%	0 0%	2 1%	0 0%	29 5%
1985-1995	396	9 6%	0 4%	0 1%	4 3%	2 2%	12 2%	1 0%	0 0%	0 3%	0 9%	2 8%	0 0%	6 9%	0 0%	1 0%	0 3%	0 2%	0 0%	6 8%	0 4%	50 8%
1996-1998	1096	13 2%	0 3%	1 6%	0 9%	1 3%	1 6%	0 2%	0 0%	0 9%	0 0%	1 1%	0 0%	2 7%	0 0%	0 2%	0 0%	0 5%	0 0%	3 1%	1 2%	71 2%
1999-2008	5766	15 5%	1 2%	1 4%	4 3%	1 9%	8 4%	2 3%	0 0%	0 1%	0 0%	0 1%	0 0%	6 9%	0 0%	1 3%	0 0%	0 2%	0 0%	5 8%	6 4%	44 2%

Appendix C.77. Percent distribution of Taku River reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	297	3.0%	3.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	90.6%
1981	446	5.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	94.8%
1982	266	5.6%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	91.7%
1983	166	2.4%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	96.4%
1984	354	9.6%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	88.4%
1985	344	2.9%	0.0%	8.1%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	88.1%
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	376	1.9%	1.1%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	95.2%
1997	633	0.5%	1.9%	8.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	88.9%
1998	389	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	99.2%
1999	593	1.3%	2.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	94.3%
2000	1104	1.9%	0.7%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	95.4%
2001	981	3.4%	2.2%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	91.3%
2002	903	2.7%	2.1%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	89.8%
2003	895	1.6%	1.5%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	95.9%
2004	2137	2.8%	4.1%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	90.3%
2005	1210	3.6%	29.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	64.0%
2006	881	3.4%	16.2%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	77.4%
2007	370	6.5%	5.1%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	87.3%
2008	648	4.3%	4.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	91.4%
1979-2008	684	3.3%	4.1%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	90.0%
1979-1984	306	5.2%	1.8%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	92.4%
1985-1995	344	2.9%	0.0%	8.1%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	88.1%
1996-1998	466	1.0%	1.0%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	94.5%
1999-2008	972	3.1%	6.7%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	87.7%

Appendix C.78. Percent distribution of Taku River total fishing mortalities among fisheries and escapement.

	Estimated	AABM							ISBM														
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	299	3 3%	3 0%	3 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	90 0%
1981	447	5 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	94 6%
1982	270	6 7%	3 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	90 4%
1983	167	3 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	95 8%
1984	357	10 4%	2 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	87 7%
1985	345	2 9%	0 0%	8 4%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	87 8%
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	383	1 8%	2 1%	2 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	93 5%
1997	650	0 6%	2 9%	9 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	86 6%
1998	391	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	98 7%
1999	624	1 9%	4 6%	3 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	89 6%
2000	1113	2 1%	1 0%	2 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	94 6%
2001	998	3 8%	3 0%	3 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	89 8%
2002	937	3 5%	2 8%	7 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	86 6%
2003	916	2 1%	2 6%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	93 7%
2004	2237	3 1%	7 5%	3 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	86 2%
2005	1292	3 6%	33 0%	3 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	60 0%
2006	911	3 7%	18 0%	3 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	74 9%
2007	398	7 8%	9 8%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	81 2%
2008	651	4 5%	4 3%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	90 9%
1979-2008	705	3 8%	5 3%	2 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	88 0%
1979-1984	308	5 7%	1 8%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	91 7%
1985-1995	345	2 9%	0 0%	8 4%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	87 8%
1996-1998	475	1 2%	1 7%	4 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	92 9%
1999-2008	1008	3 6%	8 7%	3 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	84 7%

Appendix C.79. Percent distribution of Unuk River reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	417	9 1%	0 2%	2 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	87 1%
1988	438	5 9%	0 5%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	92 5%
1989	257	7 0%	0 8%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	90 7%
1990	157	21 7%	0 0%	10 2%	2 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	65 6%
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1997	123	9 8%	5 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	84 6%
1998	336	10 4%	1 8%	3 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	84 6%
1999	456	8 5%	0 9%	13 5%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	74 7%
2000	613	15 0%	2 6%	13 4%	0 0%	3 3%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	64 6%
2001	702	14 0%	1 0%	10 4%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	73 8%
2002	414	16 7%	0 7%	11 8%	2 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	68 4%
2003	287	24 0%	0 3%	15 7%	3 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	56 1%
2004	293	13 3%	21 2%	7 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	57 7%
2005	384	33 6%	3 9%	19 0%	0 5%	3 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	39 3%
2006	374	21 1%	12 6%	12 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	52 9%
2007	333	31 5%	8 7%	8 4%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	49 5%
2008	178	25 8%	7 3%	1 7%	0 0%	4 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	60 7%
1979-2008	360	16 7%	4 3%	8 2%	0 8%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	68 9%
1979-1984	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	317	10 9%	0 4%	3 6%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	83 9%
1996-1998	230	10 1%	3 7%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	84 6%
1999-2008	404	20 4%	5 9%	11 4%	0 8%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	59 8%

Appendix C.80. Percent distribution of Unuk River total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1985	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1986	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1987	428	11 0%	0 5%	3 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	84 8%
1988	444	6 8%	0 9%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	91 2%
1989	270	9 6%	2 2%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	86 3%
1990	181	28 2%	0 6%	11 6%	2 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	56 9%
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1997	144	13 9%	8 3%	5 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	72 2%
1998	357	12 9%	2 8%	4 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	80 1%
1999	517	11 8%	1 4%	17 6%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	66 2%
2000	670	17 3%	4 0%	14 5%	0 0%	3 9%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	59 1%
2001	732	15 4%	1 1%	11 3%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	70 8%
2002	438	18 5%	1 4%	13 0%	2 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	64 6%
2003	328	28 4%	0 3%	18 3%	3 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	49 1%
2004	391	13 6%	35 3%	7 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	43 2%
2005	437	35 5%	4 6%	20 6%	0 5%	4 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	34 6%
2006	418	22 5%	16 0%	12 7%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	47 4%
2007	375	31 7%	13 1%	8 5%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	44 0%
2008	184	26 6%	8 2%	1 6%	0 0%	4 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	58 7%
1979-2008	395	19 0%	6 3%	9 5%	0 8%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	63 1%
1979-1984	0	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	331	13 9%	1 0%	3 9%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	79 8%
1996-1998	250	13 4%	5 6%	4 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	76 2%
1999-2008	449	22 1%	8 5%	12 6%	0 9%	1 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	53 8%

Appendix C.81. Percent distribution of Columbia River Upriver Bright reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	5348	17.8%	0.3%	0.6%	7.5%	0.1%	12.5%	0.0%	0.4%	0.1%	4.0%	4.4%	0.0%	1.3%	0.1%	1.1%	0.1%	0.2%	0.0%	22.8%	0.5%	26.4%
1980	3565	19.9%	0.6%	0.5%	6.4%	0.1%	7.3%	0.0%	0.4%	0.6%	1.6%	1.9%	0.0%	1.1%	0.0%	0.8%	0.0%	0.4%	0.0%	6.3%	0.7%	51.4%
1981	2268	16.0%	0.0%	0.4%	5.6%	0.0%	3.8%	0.2%	0.2%	0.2%	1.1%	1.8%	0.0%	0.5%	0.0%	0.8%	0.0%	0.2%	0.0%	3.6%	0.0%	65.7%
1982	1359	6.4%	0.4%	0.2%	3.4%	0.1%	4.6%	0.0%	0.0%	0.0%	0.2%	1.5%	0.0%	0.6%	0.0%	0.7%	0.0%	0.0%	0.0%	2.5%	0.0%	79.2%
1983	844	15.6%	0.2%	0.0%	10.2%	0.2%	3.7%	0.0%	0.0%	0.2%	1.8%	3.6%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	8.2%	0.0%	55.9%
1984	1847	14.5%	1.1%	0.1%	8.9%	0.2%	7.1%	0.2%	0.0%	0.2%	2.0%	2.2%	0.0%	0.2%	0.0%	0.0%	0.0%	0.6%	0.0%	15.5%	1.2%	46.0%
1985	3519	8.7%	1.3%	0.2%	8.2%	0.0%	7.5%	0.1%	0.0%	0.1%	0.7%	2.6%	0.0%	0.4%	0.0%	0.5%	0.1%	0.4%	0.0%	31.5%	3.6%	34.0%
1986	5262	9.7%	0.6%	0.1%	7.8%	0.1%	7.0%	0.1%	0.0%	0.1%	1.7%	1.4%	0.0%	0.8%	0.0%	0.2%	0.0%	0.4%	0.0%	33.8%	1.8%	34.5%
1987	4160	15.0%	0.7%	0.3%	11.8%	0.1%	7.0%	0.4%	0.0%	0.0%	1.7%	0.8%	0.0%	1.2%	0.0%	0.4%	0.0%	0.5%	0.0%	35.8%	2.8%	21.5%
1988	2804	9.9%	0.7%	0.4%	8.1%	0.0%	10.6%	0.0%	0.0%	0.0%	0.5%	0.6%	0.0%	1.9%	0.0%	0.5%	0.1%	0.1%	0.0%	45.0%	2.3%	19.1%
1989	1231	11.9%	0.0%	0.2%	14.9%	0.6%	7.7%	0.0%	0.0%	0.0%	0.2%	1.5%	0.0%	1.2%	0.0%	0.3%	0.0%	0.0%	0.0%	42.5%	1.6%	17.3%
1990	678	13.6%	0.0%	1.0%	9.9%	0.0%	8.1%	0.0%	0.0%	0.0%	0.7%	0.7%	0.0%	1.2%	0.0%	0.4%	0.0%	0.7%	0.0%	33.8%	1.2%	28.6%
1991	268	6.3%	0.4%	2.6%	6.0%	0.0%	9.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	19.8%	4.1%	51.1%
1992	302	3.0%	0.0%	0.0%	3.0%	0.0%	10.6%	1.0%	0.0%	0.0%	0.0%	3.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	17.2%	6.0%	55.6%
1993	525	10.9%	0.0%	0.0%	6.7%	0.6%	17.5%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	1.7%	0.0%	1.3%	0.0%	0.8%	0.0%	15.6%	4.4%	40.2%
1994	939	9.3%	0.9%	0.0%	7.6%	1.6%	6.5%	0.6%	0.0%	0.0%	0.2%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	19.2%	3.3%	50.1%
1995	694	8.1%	0.1%	1.7%	2.0%	0.0%	5.3%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.7%	0.0%	0.7%	0.0%	0.0%	0.0%	9.9%	3.6%	67.3%
1996	762	2.9%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.8%	0.0%	0.0%	0.0%	0.3%	0.0%	22.4%	5.1%	68.0%
1997	979	11.1%	0.3%	2.6%	4.6%	0.7%	0.6%	0.1%	0.0%	0.0%	0.2%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.8%	10.1%	47.8%
1998	703	8.5%	1.6%	2.3%	2.7%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.9%	8.7%	60.9%
1999	1336	10.8%	0.0%	2.5%	7.3%	0.7%	0.0%	0.4%	0.0%	0.4%	0.0%	0.0%	0.0%	0.5%	0.0%	0.1%	0.0%	0.0%	0.0%	13.9%	8.1%	55.2%
2000	890	19.3%	0.1%	2.2%	0.0%	0.0%	1.3%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.2%	0.0%	0.0%	0.0%	20.7%	5.4%	47.5%
2001	1704	3.9%	0.0%	0.7%	0.0%	0.4%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	0.5%	0.0%	0.0%	0.0%	13.6%	7.7%	70.3%
2002	2196	14.3%	0.0%	2.3%	1.4%	0.6%	1.4%	0.5%	0.0%	0.4%	0.0%	0.1%	0.0%	1.7%	0.0%	1.0%	0.0%	0.0%	0.0%	18.3%	7.4%	50.6%
2003	2334	13.5%	0.9%	0.6%	4.7%	0.9%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.6%	0.0%	0.0%	0.0%	15.1%	6.8%	55.2%
2004	2350	8.9%	1.3%	0.7%	3.2%	1.4%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	1.4%	0.0%	0.1%	0.0%	15.9%	6.2%	57.7%
2005	2502	13.8%	1.4%	0.9%	8.9%	4.4%	3.5%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	1.2%	0.0%	0.0%	0.0%	13.8%	7.0%	42.1%
2006	1638	12.9%	1.6%	1.3%	6.7%	1.7%	1.6%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.4%	0.0%	0.2%	0.0%	13.4%	15.2%	41.6%
2007	527	11.0%	0.2%	0.8%	5.9%	4.9%	1.1%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	1.3%	0.0%	0.0%	0.0%	12.7%	14.4%	46.7%
2008	786	8.7%	0.3%	0.0%	2.3%	1.8%	1.9%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.8%	0.0%	0.0%	0.0%	20.0%	8.4%	51.1%
1979-2008	1811	11.2%	0.5%	0.8%	5.9%	0.7%	5.0%	0.5%	0.0%	0.1%	0.6%	0.9%	0.0%	0.8%	0.0%	0.5%	0.0%	0.2%	0.0%	19.3%	4.9%	48.0%
1979-1984	2538	15.0%	0.5%	0.3%	7.0%	0.1%	6.5%	0.1%	0.2%	0.2%	1.8%	2.6%	0.0%	0.7%	0.0%	0.6%	0.0%	0.2%	0.0%	9.8%	0.4%	54.1%
1985-1995	1853	9.7%	0.4%	0.6%	7.8%	0.3%	8.8%	0.2%	0.0%	0.0%	0.5%	1.1%	0.0%	0.9%	0.0%	0.5%	0.0%	0.3%	0.0%	27.7%	3.1%	38.1%
1996-1998	815	7.5%	0.6%	1.6%	2.4%	0.4%	0.3%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.6%	0.0%	0.0%	0.0%	0.1%	0.0%	19.4%	8.0%	58.9%
1999-2008	1626	11.7%	0.6%	1.2%	4.0%	1.7%	1.4%	1.3%	0.0%	0.1%	0.0%	0.0%	0.0%	1.0%	0.0%	0.8%	0.0%	0.0%	0.0%	15.7%	8.7%	51.8%

Appendix C.82. Percent distribution of Columbia River Upriver Bright total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM												
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	5572	18.1%	0.3%	0.6%	7.9%	0.1%	13.2%	0.0%	0.4%	0.1%	4.1%	4.4%	0.0%	1.3%	0.1%	1.2%	0.1%	0.3%	0.0%	22.1%	0.5%	25.3%
1980	3713	20.6%	0.6%	0.6%	6.9%	0.1%	7.9%	0.0%	0.5%	0.6%	1.7%	1.9%	0.0%	1.1%	0.0%	0.8%	0.0%	0.4%	0.0%	6.2%	0.7%	49.4%
1981	2330	16.9%	0.0%	0.4%	5.9%	0.0%	4.1%	0.2%	0.2%	0.2%	1.1%	1.8%	0.0%	0.6%	0.0%	0.9%	0.0%	0.2%	0.0%	3.5%	0.0%	64.0%
1982	1438	8.5%	0.4%	0.3%	4.3%	0.2%	5.6%	0.0%	0.0%	0.0%	0.3%	1.6%	0.0%	0.8%	0.0%	0.7%	0.0%	0.0%	0.0%	2.5%	0.0%	74.9%
1983	963	21.8%	0.3%	0.0%	11.2%	0.2%	3.9%	0.0%	0.0%	0.2%	2.0%	3.4%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	7.5%	0.0%	49.0%
1984	2129	19.4%	1.1%	0.2%	9.9%	0.2%	7.9%	0.2%	0.0%	0.2%	2.2%	2.2%	0.0%	0.2%	0.0%	0.0%	0.0%	1.6%	0.0%	14.3%	1.2%	39.9%
1985	3940	12.3%	2.3%	0.3%	8.6%	0.0%	7.9%	0.2%	0.0%	0.1%	0.8%	2.5%	0.0%	0.5%	0.0%	0.5%	0.1%	0.5%	0.0%	29.7%	3.6%	30.4%
1986	5648	11.4%	1.4%	0.1%	8.1%	0.1%	7.4%	0.1%	0.0%	0.1%	1.7%	1.4%	0.0%	0.8%	0.0%	0.2%	0.1%	0.5%	0.0%	32.6%	1.8%	32.1%
1987	4710	19.1%	1.3%	0.3%	12.4%	0.1%	7.7%	0.4%	0.0%	0.0%	1.8%	0.7%	0.0%	1.2%	0.1%	0.4%	0.0%	0.5%	0.0%	32.6%	2.6%	19.0%
1988	3019	11.0%	1.5%	0.4%	8.7%	0.0%	11.8%	0.0%	0.0%	0.0%	0.6%	0.6%	0.0%	2.0%	0.0%	0.6%	0.1%	0.2%	0.0%	42.6%	2.3%	17.7%
1989	1314	14.2%	0.0%	0.2%	15.3%	0.5%	8.1%	0.0%	0.0%	0.0%	0.2%	1.4%	0.0%	1.2%	0.0%	0.3%	0.0%	0.0%	0.0%	40.6%	1.7%	16.2%
1990	711	14.1%	0.0%	1.1%	10.8%	0.0%	8.7%	0.0%	0.0%	0.0%	0.8%	0.7%	0.0%	1.3%	0.0%	0.4%	0.0%	0.8%	0.0%	32.6%	1.3%	27.3%
1991	295	8.1%	1.0%	3.4%	6.8%	0.0%	10.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	18.6%	4.4%	46.4%
1992	326	3.7%	0.0%	0.0%	3.7%	0.0%	12.6%	1.2%	0.0%	0.0%	0.0%	3.1%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	16.9%	6.7%	51.5%
1993	604	15.4%	0.0%	0.0%	7.6%	0.5%	19.4%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	1.7%	0.0%	1.2%	0.0%	0.7%	0.0%	14.1%	4.3%	34.9%
1994	995	10.8%	1.9%	0.0%	8.0%	1.6%	6.9%	0.6%	0.0%	0.0%	0.2%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	18.4%	3.4%	47.2%
1995	750	10.0%	0.1%	2.4%	2.7%	0.0%	7.1%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.7%	0.0%	0.7%	0.0%	0.0%	0.0%	9.6%	3.9%	62.3%
1996	811	4.4%	0.0%	0.0%	1.4%	0.2%	0.7%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.7%	0.0%	0.0%	0.0%	0.4%	0.0%	22.2%	5.8%	63.9%
1997	1039	12.8%	0.4%	3.3%	5.0%	1.0%	0.7%	0.1%	0.0%	0.0%	0.2%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	10.5%	45.0%
1998	769	10.5%	3.4%	2.9%	3.1%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.4%	9.5%	55.7%
1999	1434	14.2%	0.0%	2.7%	7.7%	0.8%	0.0%	0.3%	0.0%	0.5%	0.0%	0.0%	0.0%	0.6%	0.0%	0.1%	0.0%	0.0%	0.0%	13.3%	8.4%	51.5%
2000	1014	26.0%	0.1%	3.3%	0.0%	0.0%	1.5%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.2%	0.0%	0.0%	0.0%	18.5%	5.1%	41.7%
2001	1799	5.5%	0.0%	1.1%	0.0%	0.5%	0.8%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	0.0%	0.5%	0.0%	0.0%	0.0%	13.7%	8.9%	66.6%
2002	2381	16.3%	0.0%	2.5%	1.6%	0.7%	1.4%	0.6%	0.0%	0.5%	0.0%	1.1%	0.0%	1.9%	0.0%	1.0%	0.0%	0.0%	0.0%	17.6%	7.8%	47.1%
2003	2464	15.3%	1.1%	0.6%	5.2%	1.2%	0.7%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.6%	0.0%	0.0%	0.0%	14.6%	7.1%	52.3%
2004	2542	10.8%	2.7%	0.8%	3.7%	1.8%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	1.5%	0.0%	0.2%	0.0%	15.4%	6.7%	53.4%
2005	2660	14.7%	1.8%	0.9%	9.4%	5.3%	3.4%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	1.3%	0.0%	0.0%	0.0%	13.3%	7.3%	39.6%
2006	1722	13.9%	1.9%	1.4%	6.9%	1.9%	1.5%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.4%	0.0%	0.3%	0.0%	13.0%	15.9%	39.6%
2007	576	11.8%	0.2%	1.4%	5.7%	6.3%	1.2%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	1.4%	0.0%	0.0%	0.0%	12.2%	16.1%	42.7%
2008	888	13.5%	0.5%	0.0%	2.8%	1.8%	1.8%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.8%	0.0%	0.0%	0.0%	18.9%	9.6%	45.3%
1979-2008	1951	13.5%	0.8%	1.0%	6.4%	0.8%	5.5%	0.5%	0.0%	0.1%	0.6%	1.0%	0.0%	0.9%	0.0%	0.5%	0.0%	0.2%	0.0%	18.4%	5.2%	44.4%
1979-1984	2691	17.5%	0.5%	0.3%	7.7%	0.1%	7.1%	0.1%	0.2%	0.2%	1.9%	2.5%	0.0%	0.7%	0.0%	0.6%	0.0%	0.3%	0.0%	9.4%	0.4%	50.4%
1985-1995	2028	11.8%	0.9%	0.7%	8.4%	0.3%	9.8%	0.2%	0.0%	0.0%	0.6%	1.1%	0.0%	0.9%	0.0%	0.4%	0.0%	0.3%	0.0%	26.2%	3.3%	35.0%
1996-1998	873	9.3%	1.3%	2.0%	3.2%	0.5%	0.5%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.6%	0.0%	0.0%	0.0%	0.1%	0.0%	18.9%	8.6%	54.9%
1999-2008	1746	14.2%	0.8%	1.5%	4.3%	2.0%	1.4%	1.3%	0.0%	0.1%	0.0%	0.1%	0.0%	1.1%	0.0%	0.8%	0.0%	0.0%	0.0%	15.1%	9.3%	48.0%

Appendix C.83. Percent distribution of University Of Washington Accelerated reported catch among fisheries and escapement.

		AABM							ISBM													
Catch	Estimated # of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	3752	0.0%	0.0%	0.0%	0.0%	0.0%	15.0%	0.1%	1.7%	4.4%	0.3%	4.1%	0.0%	1.8%	0.0%	0.5%	6.6%	38.2%	0.0%	0.0%	0.0%	27.4%
1980	4308	0.0%	0.0%	0.0%	0.1%	0.0%	7.1%	0.1%	0.3%	5.0%	0.2%	1.4%	0.0%	1.3%	0.0%	0.0%	12.8%	49.0%	0.0%	0.0%	0.2%	22.3%
1981	3460	0.0%	0.0%	0.0%	0.6%	0.0%	10.2%	0.1%	0.6%	4.9%	0.0%	4.0%	0.0%	2.3%	0.0%	0.3%	11.7%	45.5%	0.0%	0.0%	0.0%	19.9%
1982	3299	0.0%	0.1%	0.0%	0.0%	0.0%	16.0%	0.2%	0.3%	3.8%	0.3%	0.9%	0.0%	2.3%	0.0%	0.4%	12.8%	29.4%	0.0%	1.2%	0.0%	32.3%
1983	2889	0.0%	0.0%	0.0%	0.1%	0.0%	10.6%	0.1%	0.7%	3.1%	1.0%	1.7%	0.0%	1.3%	0.0%	0.2%	19.2%	30.4%	0.0%	4.6%	0.0%	27.2%
1984	1708	0.0%	0.0%	0.0%	0.0%	0.0%	19.2%	0.2%	0.5%	4.4%	0.6%	1.0%	0.0%	1.9%	0.0%	0.0%	19.9%	23.9%	0.0%	3.5%	0.0%	24.9%
1985	759	0.0%	0.0%	0.0%	0.0%	0.0%	14.8%	1.3%	0.0%	5.0%	0.0%	5.3%	0.0%	2.2%	0.0%	0.0%	6.2%	23.7%	0.0%	9.2%	0.0%	32.3%
1986	771	0.0%	0.0%	0.0%	0.0%	0.0%	18.9%	0.9%	0.0%	3.9%	0.0%	8.2%	0.0%	1.4%	0.0%	0.0%	20.4%	18.9%	0.0%	5.6%	0.0%	21.8%
1987	961	0.3%	0.0%	0.0%	0.0%	0.0%	10.8%	1.5%	1.4%	4.7%	0.3%	0.3%	0.0%	4.1%	0.0%	0.2%	22.6%	13.7%	0.0%	25.6%	0.0%	14.6%
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1997	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1998	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1999	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2000	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2001	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2005	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2006	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2007	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979-2008	2434	0.0%	0.0%	0.0%	0.1%	0.0%	13.6%	0.5%	0.6%	4.3%	0.3%	3.0%	0.0%	2.1%	0.0%	0.2%	14.7%	30.3%	0.0%	5.5%	0.0%	24.7%
1979-1984	3236	0.0%	0.0%	0.0%	0.1%	0.0%	13.0%	0.2%	0.7%	4.3%	0.4%	2.2%	0.0%	1.8%	0.0%	0.2%	13.8%	36.1%	0.0%	1.5%	0.0%	25.7%
1985-1995	830	0.1%	0.0%	0.0%	0.0%	0.0%	14.8%	1.2%	0.5%	4.5%	0.1%	4.6%	0.0%	2.6%	0.0%	0.1%	16.4%	18.8%	0.0%	13.5%	0.0%	22.9%
1996-1998	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1999-2008	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Appendix C.84. Percent distribution of University Of Washington Accelerated total fishing mortalities among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	4319	0.0%	0.0%	0.0%	0.0%	0.0%	15.3%	0.1%	1.6%	4.1%	0.3%	3.7%	0.0%	1.8%	0.0%	0.5%	7.0%	41.8%	0.0%	0.0%	0.0%	23.8%
1980	5908	0.0%	0.0%	0.0%	0.1%	0.0%	8.4%	0.1%	0.3%	3.9%	0.2%	1.2%	0.0%	1.5%	0.0%	0.0%	13.0%	54.9%	0.0%	0.0%	0.2%	16.3%
1981	4320	0.0%	0.0%	0.0%	0.6%	0.0%	10.7%	0.1%	0.5%	4.3%	0.0%	3.5%	0.0%	2.2%	0.0%	0.3%	11.1%	50.8%	0.0%	0.0%	0.0%	15.9%
1982	3882	0.0%	0.1%	0.0%	0.0%	0.0%	18.9%	0.2%	0.3%	3.5%	0.3%	0.8%	0.0%	2.6%	0.0%	0.4%	13.0%	31.5%	0.0%	1.1%	0.0%	27.4%
1983	3870	0.0%	0.0%	0.0%	0.1%	0.0%	9.7%	0.1%	0.6%	2.5%	0.9%	1.3%	0.0%	1.2%	0.0%	0.2%	20.5%	38.8%	0.0%	3.7%	0.0%	20.3%
1984	2052	0.0%	0.0%	0.0%	0.0%	0.0%	18.2%	0.2%	0.4%	3.9%	0.5%	1.0%	0.0%	1.6%	0.0%	0.0%	19.9%	30.4%	0.0%	3.1%	0.0%	20.7%
1985	891	0.0%	0.0%	0.0%	0.0%	0.0%	14.5%	1.2%	0.0%	4.6%	0.0%	5.1%	0.0%	2.1%	0.0%	0.0%	6.5%	30.1%	0.0%	8.4%	0.0%	27.5%
1986	951	0.0%	0.0%	0.0%	0.0%	0.0%	19.3%	0.9%	0.0%	3.5%	0.0%	7.4%	0.0%	1.6%	0.0%	0.0%	20.4%	24.3%	0.0%	4.9%	0.0%	17.7%
1987	1034	0.5%	0.0%	0.0%	0.0%	0.0%	11.4%	1.5%	1.4%	4.6%	0.3%	0.3%	0.0%	4.4%	0.0%	0.2%	22.1%	14.9%	0.0%	25.0%	0.0%	13.5%
1988	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1989	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1990	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1996	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1997	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1998	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1999	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2000	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2001	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2005	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2006	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2007	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979-2008	3025	0.1%	0.0%	0.0%	0.1%	0.0%	14.0%	0.5%	0.6%	3.9%	0.3%	2.7%	0.0%	2.1%	0.0%	0.2%	14.8%	35.3%	0.0%	5.1%	0.0%	20.4%
1979-1984	4058	0.0%	0.0%	0.0%	0.1%	0.0%	13.5%	0.1%	0.6%	3.7%	0.4%	1.9%	0.0%	1.8%	0.0%	0.2%	14.1%	41.4%	0.0%	1.3%	0.0%	20.7%
1985-1995	959	0.2%	0.0%	0.0%	0.0%	0.0%	15.1%	1.2%	0.5%	4.2%	0.1%	4.2%	0.0%	2.7%	0.0%	0.1%	16.3%	23.1%	0.0%	12.8%	0.0%	19.6%
1996-1998	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1999-2008	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Appendix C.85. Percent distribution of White River Spring Yearling reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM														
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	82	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	67.1%	23.2%	0.0%	6.1%	0.0%	1.2%
1983	186	0.0%	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	1.6%	0.0%	0.0%	11.3%	59.7%	0.0%	0.0%	0.0%	21.5%
1984	155	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	0.0%	5.2%	0.0%	5.8%	0.0%	0.0%	2.6%	0.0%	0.0%	3.9%	25.2%	0.0%	5.2%	0.0%	47.7%
1985	312	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	30.8%	50.6%	0.0%	0.0%	0.0%	13.5%
1986	844	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	2.4%	0.4%	2.0%	0.0%	0.4%	0.0%	0.0%	15.3%	52.3%	0.0%	0.0%	0.0%	26.8%
1987	452	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	0.4%	0.0%	3.3%	0.0%	0.0%	11.3%	42.3%	0.0%	0.0%	0.0%	41.2%
1988	1606	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.8%	0.0%	2.5%	0.0%	0.2%	0.0%	1.3%	0.0%	0.2%	13.0%	48.3%	0.0%	0.0%	0.0%	33.6%
1989	895	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	1.2%	0.0%	1.0%	0.0%	6.0%	0.0%	0.2%	13.3%	40.9%	0.0%	0.3%	0.0%	35.8%
1990	441	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.5%	0.0%	0.7%	0.0%	5.4%	0.0%	0.0%	15.6%	42.0%	0.0%	0.5%	0.0%	33.3%
1991	388	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	1.3%	0.0%	1.3%	0.0%	0.0%	0.0%	4.1%	0.0%	0.0%	10.8%	38.1%	0.0%	0.0%	0.0%	43.6%
1992	778	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	0.8%	0.0%	1.9%	0.0%	2.8%	0.0%	2.4%	0.0%	0.5%	7.1%	45.0%	0.0%	0.8%	0.0%	36.2%
1993	279	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	2.9%	30.5%	0.0%	0.7%	0.0%	62.4%
1994	212	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	1.4%	43.9%	0.0%	0.0%	0.0%	51.9%
1995	388	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	29.4%	0.0%	0.0%	0.0%	69.3%
1996	340	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	42.9%	0.0%	0.0%	0.0%	55.9%
1997	267	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.7%	40.4%	0.0%	0.0%	0.0%	55.8%
1998	126	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	1.6%	27.0%	0.0%	0.0%	0.0%	69.8%
1999	82	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	30.5%	0.0%	0.0%	0.0%	64.6%
2000	86	0.0%	0.0%	0.0%	0.0%	0.0%	5.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	37.2%	0.0%	0.0%	0.0%	54.7%
2001	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2005	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2006	1011	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%	0.0%	0.1%	0.2%	8.8%	0.0%	1.7%	0.0%	85.2%
2007	849	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.4%	0.2%	15.9%	0.0%	2.2%	0.0%	79.9%
2008	232	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	5.6%	0.0%	5.6%	0.0%	86.2%
1979-2008	455	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.2%	0.2%	0.9%	0.3%	0.6%	0.0%	1.6%	0.0%	0.1%	9.7%	35.4%	0.0%	1.0%	0.0%	48.6%
1979-1984	141	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	0.0%	1.7%	0.8%	1.9%	0.5%	0.0%	1.4%	0.0%	0.0%	27.4%	36.0%	0.0%	3.8%	0.0%	23.5%
1985-1995	600	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.5%	0.0%	1.3%	0.0%	1.0%	0.0%	2.4%	0.0%	0.1%	11.1%	42.1%	0.0%	0.2%	0.0%	40.7%
1996-1998	244	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	1.9%	36.8%	0.0%	0.0%	0.0%	60.5%
1999-2008	452	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.6%	0.0%	0.1%	0.6%	19.6%	0.0%	1.9%	0.0%	74.1%

Appendix C.86. Percent distribution of White River Spring Yearling total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1981	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	106	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	1 9%	0 9%	0 0%	0 0%	0 9%	0 0%	0 0%	55 7%	34 0%	0 0%	4 7%	0 0%	0 9%
1983	211	0 0%	0 0%	0 0%	0 0%	0 0%	4 3%	0 0%	0 0%	0 0%	0 0%	1 4%	0 0%	1 4%	0 0%	0 0%	10 4%	63 5%	0 0%	0 0%	0 0%	19 0%
1984	228	0 0%	0 0%	0 0%	0 0%	0 0%	3 9%	0 0%	4 4%	0 0%	4 8%	0 0%	0 0%	1 8%	0 0%	0 0%	3 5%	45 6%	0 0%	3 5%	0 0%	32 5%
1985	436	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 8%	0 0%	0 0%	0 0%	2 5%	0 0%	0 0%	0 0%	0 0%	25 7%	60 3%	0 0%	0 0%	0 0%	9 6%
1986	956	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	2 3%	0 4%	2 0%	0 0%	0 4%	0 0%	0 0%	14 1%	56 5%	0 0%	0 0%	0 0%	23 6%
1987	717	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 4%	0 0%	2 5%	0 0%	0 0%	8 2%	61 9%	0 0%	0 0%	0 0%	25 9%
1988	1821	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 8%	0 0%	2 9%	0 0%	0 2%	0 0%	1 4%	0 0%	0 2%	12 6%	52 1%	0 0%	0 0%	0 0%	29 6%
1989	1018	0 0%	0 0%	0 0%	0 0%	0 0%	1 3%	0 0%	0 0%	1 3%	0 0%	1 0%	0 0%	6 3%	0 0%	0 2%	12 0%	46 3%	0 0%	0 3%	0 0%	31 4%
1990	514	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	0 0%	0 0%	0 4%	0 0%	0 6%	0 0%	5 8%	0 0%	0 0%	14 0%	48 1%	0 0%	0 4%	0 0%	28 6%
1991	461	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	1 3%	0 0%	1 3%	0 0%	0 0%	0 0%	4 1%	0 0%	0 0%	9 8%	46 0%	0 0%	0 0%	0 0%	36 7%
1992	858	0 0%	0 0%	0 0%	0 0%	0 0%	2 7%	0 7%	0 0%	2 1%	0 0%	2 6%	0 0%	2 7%	0 0%	0 5%	6 8%	48 5%	0 0%	0 7%	0 0%	32 9%
1993	321	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	2 8%	0 0%	0 0%	2 5%	39 3%	0 0%	0 6%	0 0%	54 2%
1994	248	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	1 6%	51 2%	0 0%	0 0%	0 0%	44 4%
1995	470	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	41 3%	0 0%	0 0%	0 0%	57 2%
1996	379	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	48 5%	0 0%	0 0%	0 0%	50 1%
1997	317	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 5%	49 5%	0 0%	0 0%	0 0%	47 0%
1998	139	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	0 0%	0 0%	1 4%	33 8%	0 0%	0 0%	0 0%	63 3%
1999	104	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	0 0%	0 0%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	45 2%	0 0%	0 0%	0 0%	51 0%
2000	96	0 0%	0 0%	0 0%	0 0%	0 0%	5 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	43 8%	0 0%	0 0%	0 0%	49 0%
2001	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2005	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2006	1109	0 0%	0 0%	0 0%	0 0%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 5%	0 0%	0 1%	0 3%	16 6%	0 0%	1 6%	0 0%	77 6%
2007	892	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 4%	0 2%	19 7%	0 0%	2 2%	0 0%	76 0%
2008	236	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	7 2%	0 0%	5 5%	0 0%	84 7%
1979-2008	529	0 0%	0 0%	0 0%	0 0%	0 0%	1 3%	0 2%	0 2%	0 9%	0 3%	0 5%	0 0%	1 6%	0 0%	0 1%	8 5%	43 6%	0 0%	0 9%	0 0%	42 1%
1979-1984	182	0 0%	0 0%	0 0%	0 0%	0 0%	3 1%	0 0%	1 5%	0 6%	1 9%	0 5%	0 0%	1 4%	0 0%	0 0%	23 2%	47 7%	0 0%	2 7%	0 0%	17 5%
1985-1995	711	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 4%	0 0%	1 3%	0 0%	0 9%	0 0%	2 4%	0 0%	0 1%	9 8%	50 1%	0 0%	0 2%	0 0%	34 0%
1996-1998	278	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	1 7%	44 0%	0 0%	0 0%	0 0%	53 5%
1999-2008	487	0 0%	0 0%	0 0%	0 0%	0 0%	2 3%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 5%	0 0%	0 1%	0 6%	26 5%	0 0%	1 9%	0 0%	67 7%

Appendix C.87. Percent distribution of Willamette Spring reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	AABM							ISBM													Esc.
		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
		Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	5769	3 4%	0 5%	0 1%	5 8%	0 1%	2 7%	0 0%	0 0%	0 0%	0 1%	0 5%	0 0%	0 5%	0 0%	0 7%	0 0%	0 1%	0 0%	0 3%	8 0%	77 2%
1981	8056	4 4%	0 6%	0 1%	6 1%	0 0%	1 4%	0 0%	0 0%	0 0%	0 4%	0 1%	0 0%	0 4%	0 0%	0 2%	0 0%	0 0%	0 0%	1 5%	10 5%	74 3%
1982	3699	4 0%	1 1%	0 1%	6 5%	0 1%	4 0%	0 0%	0 0%	0 0%	0 1%	0 4%	0 0%	1 1%	0 0%	1 7%	0 1%	0 1%	0 0%	7 0%	24 7%	48 9%
1983	2478	12 5%	0 1%	0 0%	11 6%	0 0%	1 8%	0 0%	0 4%	0 3%	0 3%	0 0%	0 0%	1 8%	0 0%	0 4%	0 0%	0 4%	0 0%	6 3%	22 4%	41 5%
1984	3950	4 0%	0 3%	0 3%	2 2%	0 1%	1 9%	0 0%	0 0%	0 1%	0 1%	0 1%	0 0%	1 0%	0 0%	0 0%	0 0%	0 2%	0 0%	6 5%	24 5%	58 8%
1985	2532	5 1%	0 1%	0 0%	0 5%	0 0%	0 5%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 3%	0 0%	0 0%	0 2%	0 0%	0 0%	18 2%	20 4%	54 7%
1986	686	3 1%	0 4%	0 0%	6 6%	0 0%	5 4%	0 6%	0 0%	0 0%	0 6%	2 5%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	9 0%	17 5%	53 6%
1987	637	9 7%	0 0%	0 6%	13 2%	0 0%	0 9%	1 3%	0 0%	0 0%	0 8%	1 1%	0 0%	2 4%	0 0%	0 0%	0 0%	0 3%	0 0%	6 3%	27 2%	36 3%
1988	1894	8 6%	0 2%	0 4%	6 2%	0 0%	3 1%	0 0%	0 0%	0 0%	0 6%	0 1%	0 0%	2 2%	0 0%	0 2%	0 0%	0 0%	0 0%	6 9%	28 6%	42 9%
1989	2636	4 4%	0 0%	0 2%	1 8%	0 0%	1 4%	0 5%	0 0%	0 5%	0 0%	0 3%	0 0%	1 5%	0 0%	0 2%	0 0%	0 1%	0 0%	12 6%	20 0%	56 6%
1990	2553	6 3%	0 3%	0 2%	1 4%	0 2%	2 1%	0 7%	0 0%	0 0%	0 2%	0 6%	0 0%	1 3%	0 0%	0 1%	0 0%	0 0%	0 0%	17 0%	27 6%	42 0%
1991	2818	3 1%	1 2%	0 6%	1 7%	0 0%	0 4%	0 2%	0 0%	0 2%	0 0%	0 2%	0 0%	0 7%	0 0%	0 2%	0 0%	0 0%	0 0%	6 0%	42 6%	43 0%
1992	2466	3 5%	1 3%	0 2%	1 7%	0 2%	2 7%	0 2%	0 0%	0 0%	0 0%	0 2%	0 0%	2 4%	0 0%	0 4%	0 0%	0 3%	0 0%	5 8%	30 6%	50 4%
1993	4792	8 1%	0 0%	0 0%	1 3%	0 1%	1 4%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	0 1%	0 0%	0 0%	0 0%	0 8%	43 0%	43 5%
1994	4726	4 1%	0 3%	0 9%	0 7%	0 1%	0 7%	0 0%	0 0%	0 0%	0 2%	0 2%	0 0%	0 2%	0 0%	0 1%	0 0%	0 1%	0 0%	5 1%	38 6%	48 8%
1995	4150	2 8%	0 1%	0 3%	1 0%	0 0%	0 3%	0 1%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 3%	43 6%	50 9%
1996	3589	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 1%	0 0%	0 0%	0 0%	0 1%	0 0%	0 8%	33 3%	64 1%
1997	2224	3 6%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	15 8%	79 0%
1998	1538	4 3%	0 1%	0 2%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 2%	0 0%	0 4%	16 4%	78 2%
1999	1710	4 3%	0 0%	0 3%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 8%	14 6%	79 3%
2000	6269	7 8%	0 1%	0 4%	0 1%	0 5%	0 4%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 3%	0 0%	0 0%	0 0%	2 3%	29 3%	58 0%
2001	33970	1 4%	0 0%	0 1%	0 1%	0 1%	0 5%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 1%	0 0%	3 5%	23 1%	70 9%
2002	19455	1 8%	0 1%	0 1%	0 9%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 2%	0 0%	0 0%	0 0%	15 7%	20 0%	59 5%
2003	6751	4 8%	0 0%	0 1%	0 4%	0 2%	2 4%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 1%	0 0%	0 0%	0 0%	1 5%	15 6%	74 6%
2004	6785	2 9%	0 3%	0 1%	0 6%	0 0%	5 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	0 0%	6 2%	20 2%	62 4%
2005	2960	2 7%	0 0%	0 1%	0 3%	0 2%	5 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 1%	0 0%	0 1%	0 0%	5 1%	15 5%	69 7%
2006	1903	3 0%	0 0%	0 0%	0 3%	0 6%	4 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	0 3%	0 0%	7 9%	24 5%	58 0%
2007	1536	3 9%	0 1%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	4 8%	17 7%	71 6%
2008	2185	1 3%	0 8%	0 0%	0 4%	0 0%	1 1%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	19 2%	12 1%	64 6%
1979-2008	4990	4 5%	0 3%	0 2%	2 5%	0 1%	1 8%	0 2%	0 0%	0 0%	0 1%	0 2%	0 0%	0 8%	0 0%	0 2%	0 0%	0 1%	0 0%	6 2%	23 7%	59 1%
1979-1984	4790	5 7%	0 5%	0 1%	6 4%	0 1%	2 4%	0 0%	0 1%	0 1%	0 2%	0 2%	0 0%	0 9%	0 0%	0 6%	0 0%	0 2%	0 0%	4 3%	18 0%	60 2%
1985-1995	2717	5 4%	0 4%	0 3%	3 3%	0 0%	1 7%	0 3%	0 0%	0 1%	0 2%	0 5%	0 0%	1 1%	0 0%	0 2%	0 0%	0 1%	0 0%	8 0%	30 9%	47 5%
1996-1998	2450	3 1%	0 0%	0 1%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 2%	0 0%	0 0%	0 0%	0 1%	0 0%	0 7%	21 8%	73 8%
1999-2008	8352	3 4%	0 1%	0 1%	0 3%	0 2%	2 2%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 1%	0 0%	0 0%	0 0%	6 7%	19 3%	66 8%

Appendix C.88. Percent distribution of Willamette Spring total fishing mortalities among fisheries and escapement.

	Estimated	AABM							ISBM													
Catch	# of	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc
1979	< 3 Broods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	6143	4 6%	0 5%	0 2%	8 0%	0 1%	3 5%	0 0%	0 0%	0 0%	0 2%	0 5%	0 0%	0 7%	0 0%	0 8%	0 0%	0 0%	0 0%	0 3%	8 0%	72 5%
1981	8469	5 4%	0 6%	0 1%	7 8%	0 0%	1 7%	0 0%	0 0%	0 0%	0 5%	0 1%	0 0%	0 4%	0 0%	0 3%	0 0%	0 0%	0 0%	1 5%	10 8%	70 7%
1982	4024	5 5%	1 1%	0 2%	8 0%	0 1%	5 0%	0 0%	0 0%	0 0%	0 1%	0 4%	0 0%	1 3%	0 0%	1 9%	0 1%	0 2%	0 0%	6 7%	24 5%	45 0%
1983	2864	18 3%	0 1%	0 0%	12 9%	0 0%	2 0%	0 0%	0 5%	0 3%	0 3%	0 0%	0 0%	2 1%	0 0%	0 5%	0 0%	0 6%	0 0%	5 8%	20 8%	35 9%
1984	4115	4 7%	0 3%	0 4%	2 5%	0 1%	2 1%	0 0%	0 0%	0 1%	0 1%	0 1%	0 0%	1 1%	0 0%	0 0%	0 0%	0 2%	0 0%	6 6%	25 1%	56 5%
1985	2662	7 7%	0 2%	0 0%	0 5%	0 0%	0 6%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 3%	0 0%	0 0%	0 2%	0 0%	0 0%	17 6%	20 8%	52 0%
1986	738	4 3%	1 2%	0 0%	7 5%	0 0%	6 2%	0 7%	0 0%	0 0%	0 7%	2 6%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	8 7%	17 5%	49 9%
1987	807	17 7%	0 0%	1 0%	15 5%	0 0%	1 5%	1 2%	0 0%	0 0%	1 2%	1 0%	0 0%	3 1%	0 0%	0 0%	0 0%	0 6%	0 0%	5 3%	23 2%	28 6%
1988	2214	10 0%	0 4%	0 6%	7 9%	0 0%	3 8%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	2 4%	0 0%	0 2%	0 0%	0 0%	0 0%	6 6%	30 6%	36 7%
1989	2828	5 7%	0 0%	0 2%	2 2%	0 0%	1 6%	0 6%	0 0%	0 6%	0 0%	0 2%	0 0%	1 7%	0 0%	0 2%	0 0%	0 1%	0 0%	12 2%	21 8%	52 8%
1990	2860	9 9%	0 7%	0 3%	2 0%	0 2%	2 7%	0 7%	0 0%	0 0%	0 2%	0 6%	0 0%	1 5%	0 0%	0 1%	0 0%	0 0%	0 0%	15 7%	28 1%	37 5%
1991	3122	4 1%	2 2%	0 7%	2 1%	0 0%	0 4%	0 2%	0 0%	0 2%	0 0%	0 2%	0 0%	0 7%	0 0%	0 2%	0 0%	0 0%	0 0%	5 7%	44 4%	38 9%
1992	2889	7 1%	4 7%	0 2%	2 0%	0 2%	3 1%	0 2%	0 0%	0 0%	0 0%	0 2%	0 0%	2 7%	0 0%	0 4%	0 0%	0 6%	0 0%	5 2%	30 2%	43 1%
1993	5580	12 4%	0 0%	0 0%	1 5%	0 1%	1 5%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%	0 1%	0 0%	0 0%	0 0%	0 8%	44 3%	37 4%
1994	5182	5 7%	0 8%	1 1%	0 9%	0 1%	0 8%	0 0%	0 0%	0 0%	0 3%	0 2%	0 0%	0 2%	0 0%	0 1%	0 0%	0 1%	0 0%	4 8%	40 4%	44 5%
1995	4653	5 3%	0 2%	0 4%	1 5%	0 0%	0 5%	0 1%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 3%	45 6%	45 4%
1996	3812	2 3%	0 0%	0 0%	0 1%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 1%	0 0%	0 0%	0 0%	0 1%	0 0%	0 8%	36 0%	60 3%
1997	2299	4 5%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	17 2%	76 4%
1998	1619	5 7%	0 2%	0 3%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 4%	0 0%	0 4%	18 3%	74 3%
1999	1887	9 7%	0 0%	1 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 8%	15 7%	71 9%
2000	7358	13 9%	0 1%	1 0%	0 2%	0 7%	0 4%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 3%	0 0%	0 0%	0 0%	2 1%	31 2%	49 4%
2001	36125	1 6%	0 0%	0 1%	0 1%	0 1%	0 5%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 2%	0 0%	3 7%	26 7%	66 7%
2002	20307	2 2%	0 2%	0 1%	1 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 3%	0 0%	0 0%	0 0%	15 3%	22 1%	57 0%
2003	7045	6 1%	0 0%	0 1%	0 5%	0 2%	2 5%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 2%	0 0%	0 0%	0 0%	1 5%	17 0%	71 5%
2004	7251	3 8%	0 7%	0 1%	0 7%	0 0%	5 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%	6 2%	22 6%	58 4%
2005	3074	3 2%	0 0%	0 1%	0 3%	0 3%	5 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 1%	0 0%	0 1%	0 0%	5 1%	17 0%	67 1%
2006	2061	4 2%	0 0%	0 0%	0 4%	0 7%	4 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	0 0%	0 0%	0 0%	0 4%	0 0%	7 7%	27 2%	53 6%
2007	1638	5 6%	0 2%	0 0%	0 0%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	4 8%	20 0%	67 2%
2008	2312	2 0%	1 1%	0 1%	0 5%	0 0%	1 2%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 1%	0 0%	0 0%	19 4%	14 1%	61 0%
1979-2008	5377	6 7%	0 5%	0 3%	3 0%	0 1%	2 1%	0 2%	0 0%	0 1%	0 2%	0 2%	0 0%	1 0%	0 0%	0 2%	0 0%	0 1%	0 0%	5 9%	24 9%	54 5%
1979-1984	5123	7 7%	0 5%	0 2%	7 8%	0 1%	2 9%	0 0%	0 1%	0 1%	0 3%	0 2%	0 0%	1 1%	0 0%	0 7%	0 0%	0 2%	0 0%	4 2%	17 8%	56 1%
1985-1995	3049	8 2%	0 9%	0 4%	4 0%	0 1%	2 1%	0 4%	0 0%	0 1%	0 3%	0 5%	0 0%	1 3%	0 0%	0 2%	0 0%	0 1%	0 0%	7 5%	31 5%	42 4%
1996-1998	2577	4 2%	0 1%	0 1%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 2%	0 0%	0 0%	0 0%	0 2%	0 0%	0 7%	23 9%	70 4%
1999-2008	8906	5 2%	0 2%	0 2%	0 4%	0 2%	2 3%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 1%	0 0%	0 1%	0 0%	6 6%	21 4%	62 4%

Appendix D. Cohort (CWT) age 2 or 3 survival indices (completed brood years only) and Chinook model (EV) age 2 or 3 survival indices for exploitation rate indicator stocks. CWT indices are brood year survival divided by the long term average brood year survival. EV indices are brood year EV's divided by the long term average EV's using the same years in the average as the CWT index.

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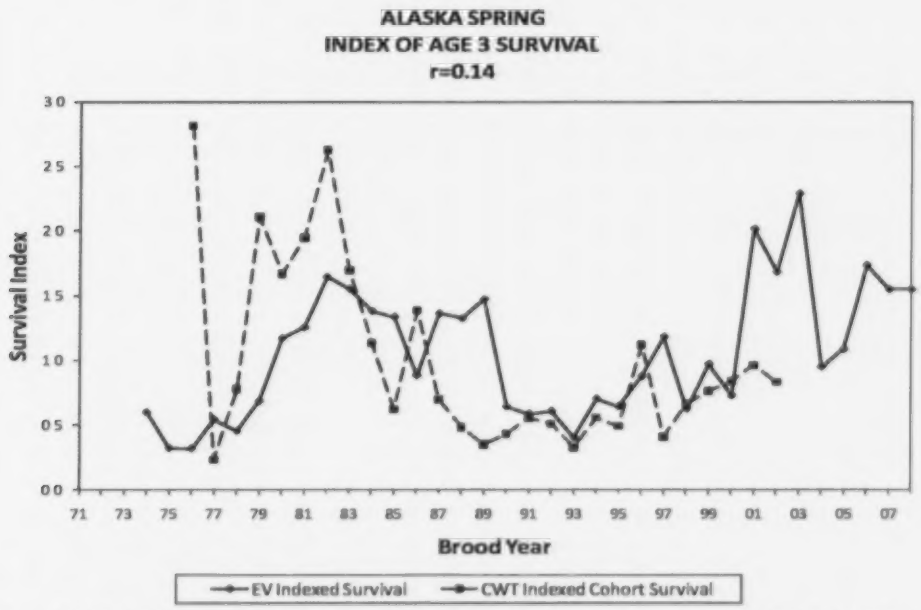
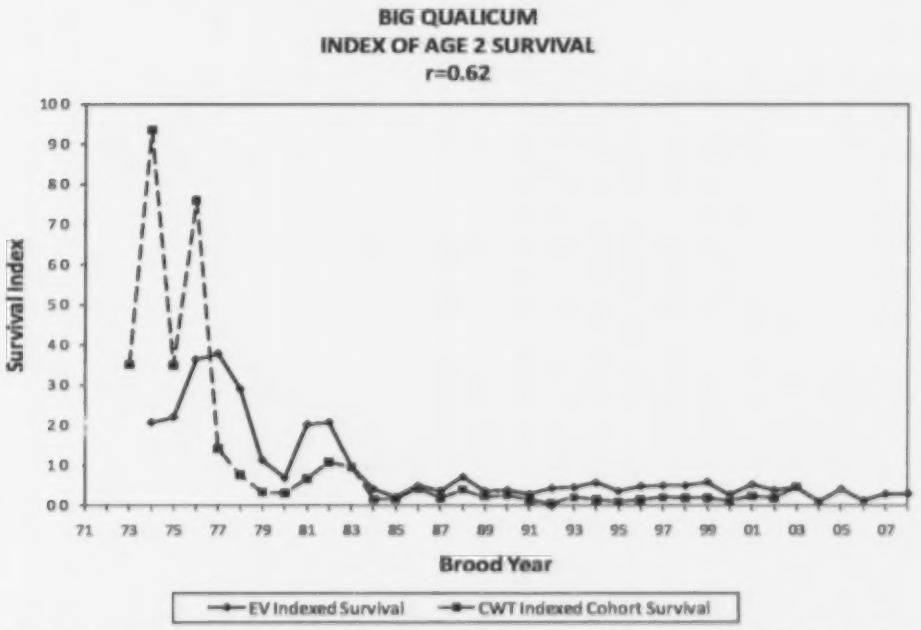


Figure D 1. Alaska Spring cohort (CWT) and model (EV) age 3 survival indices (r = correlation between CWT and EV survival indices).



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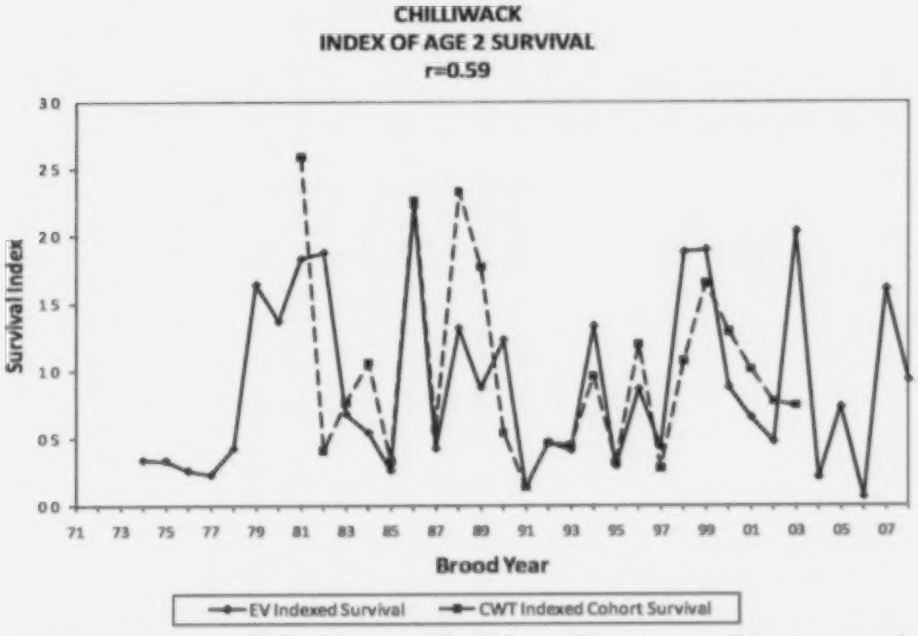

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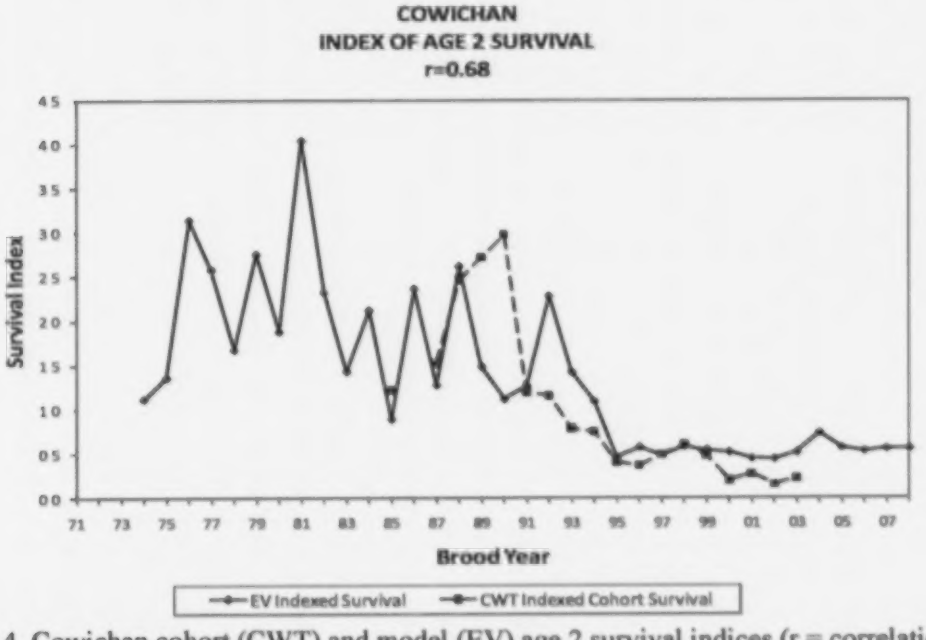

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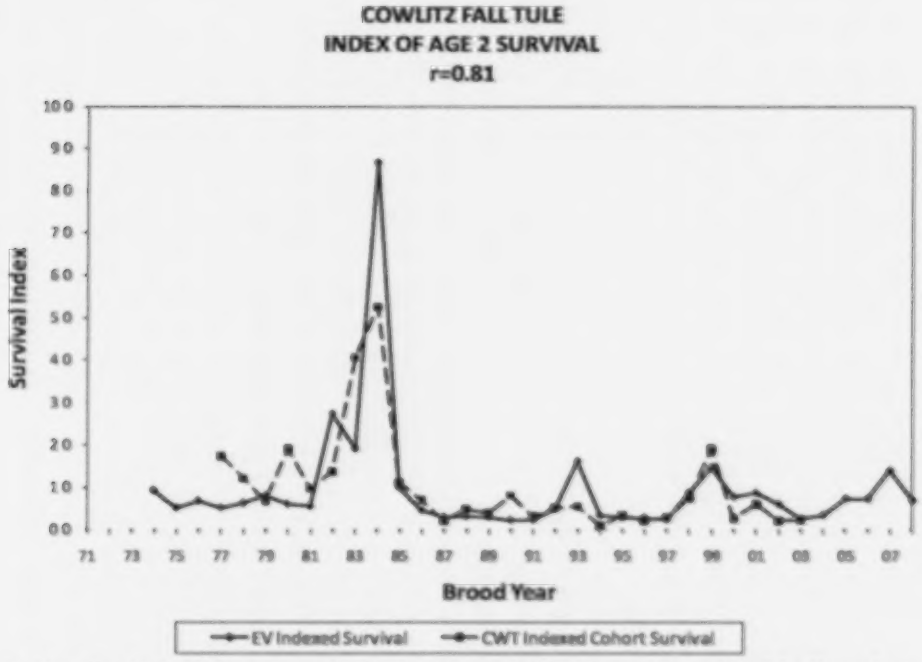

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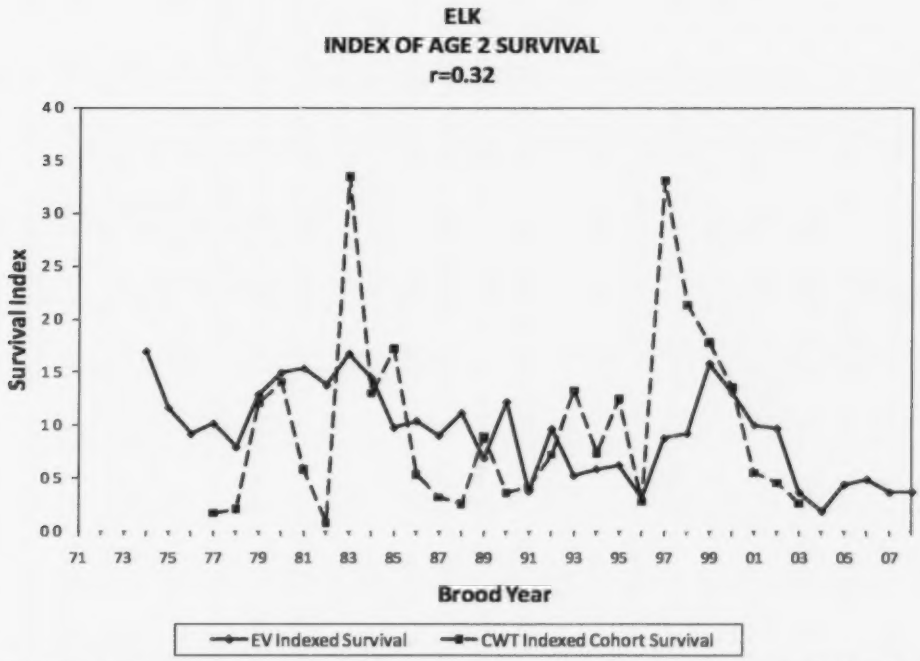

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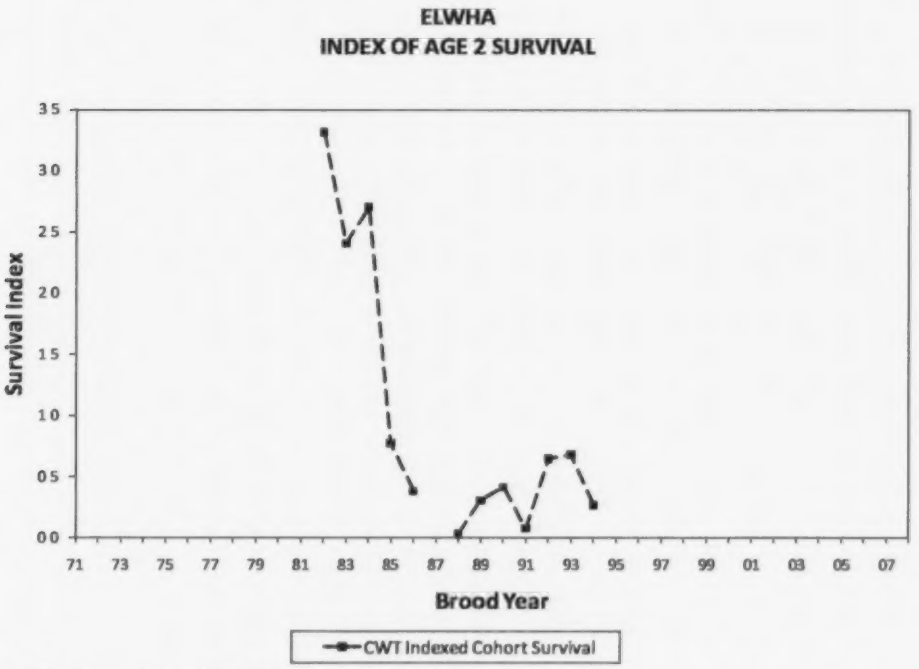

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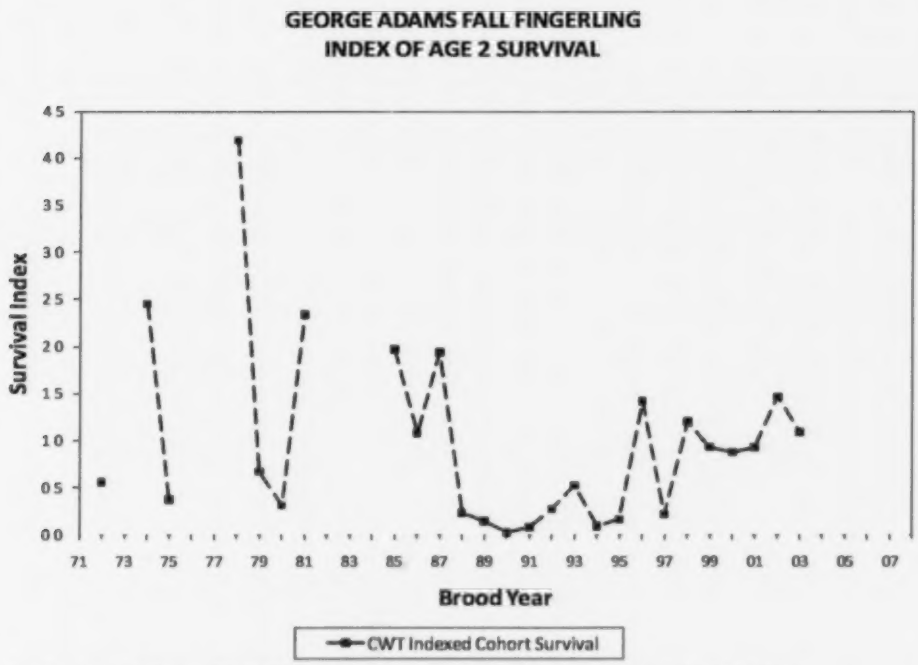

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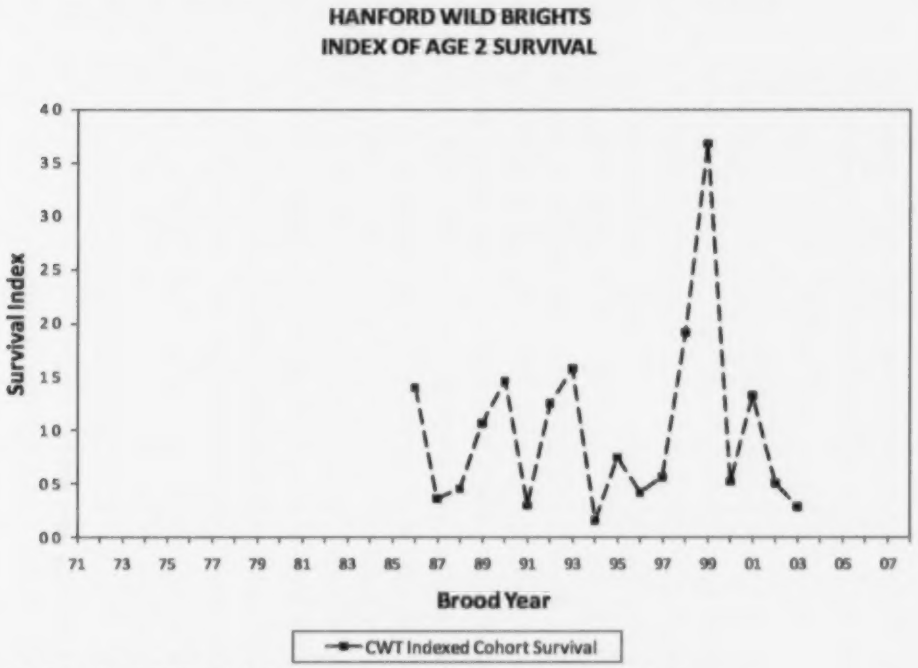

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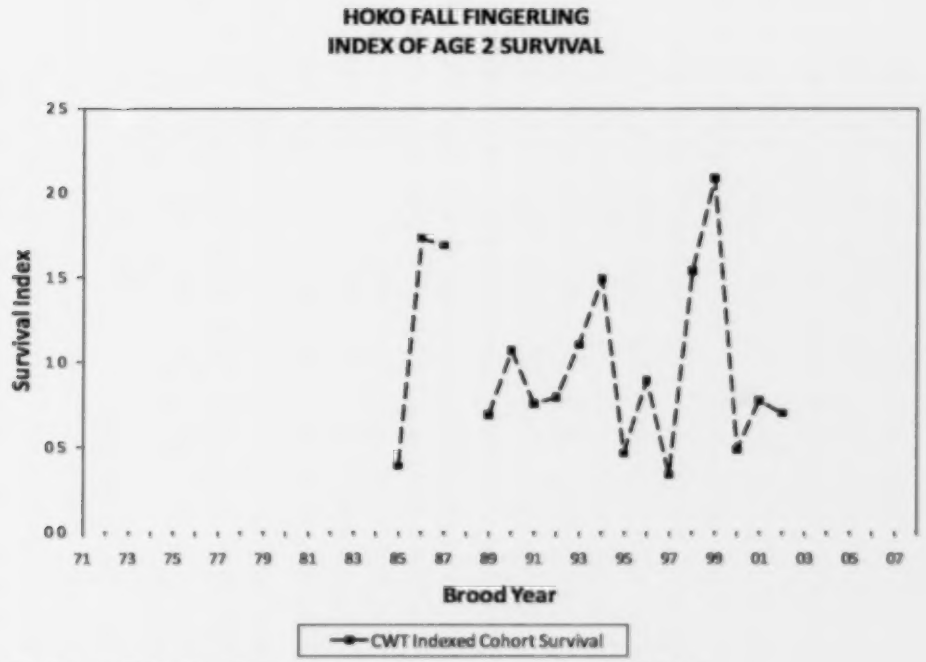

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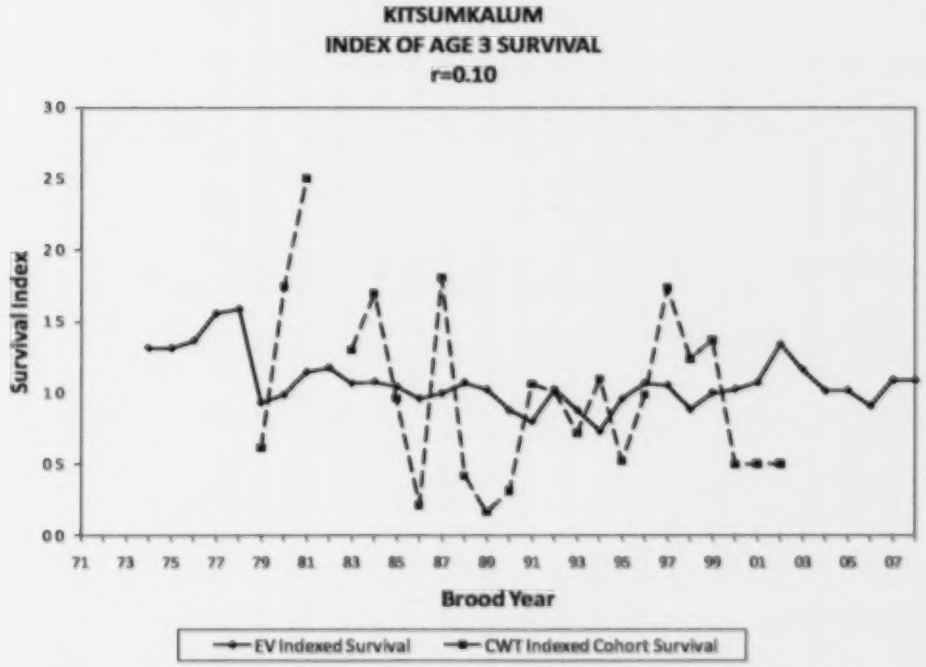

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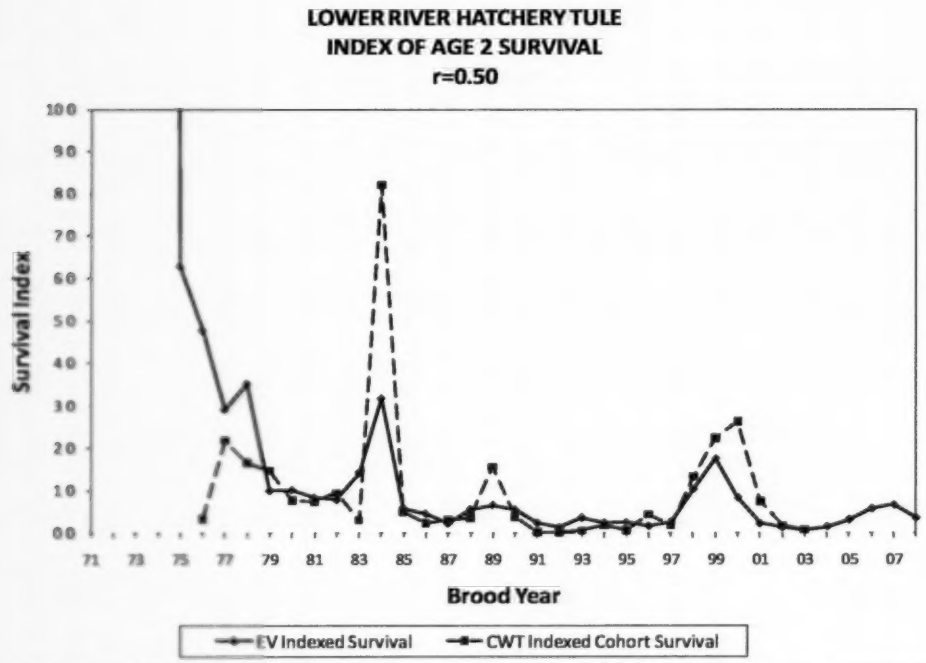

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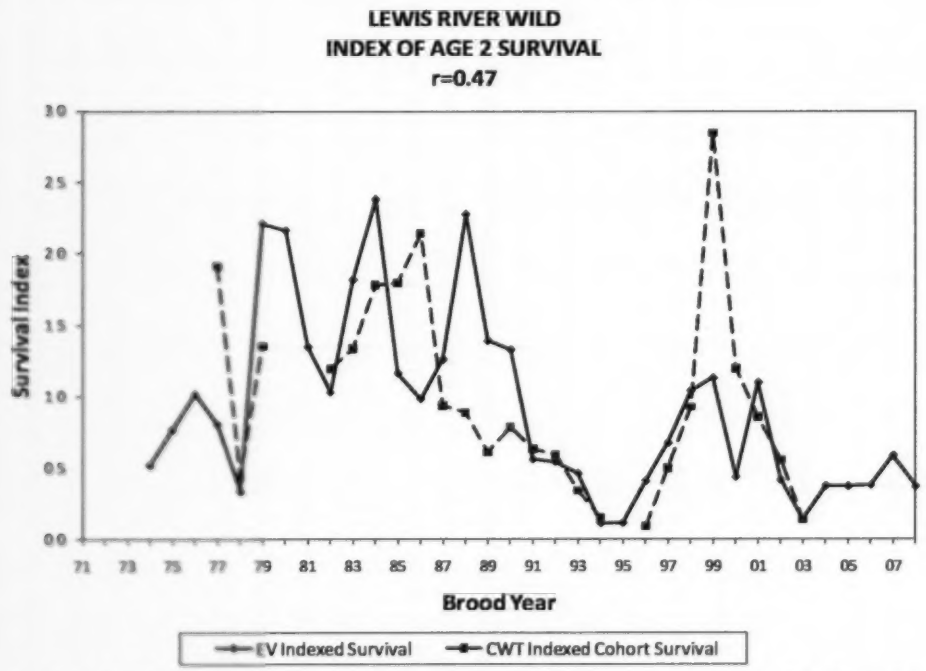

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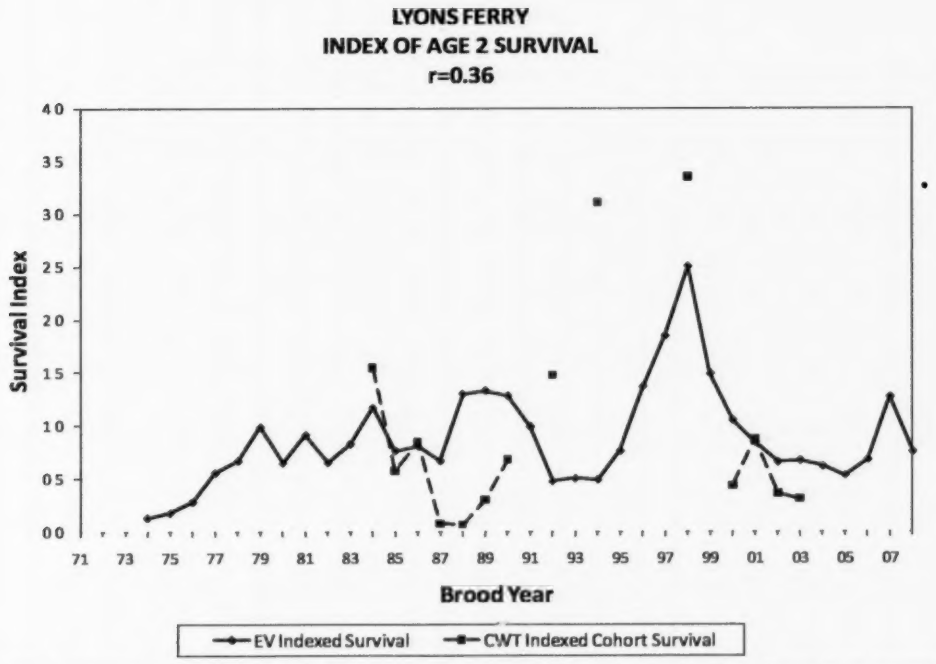

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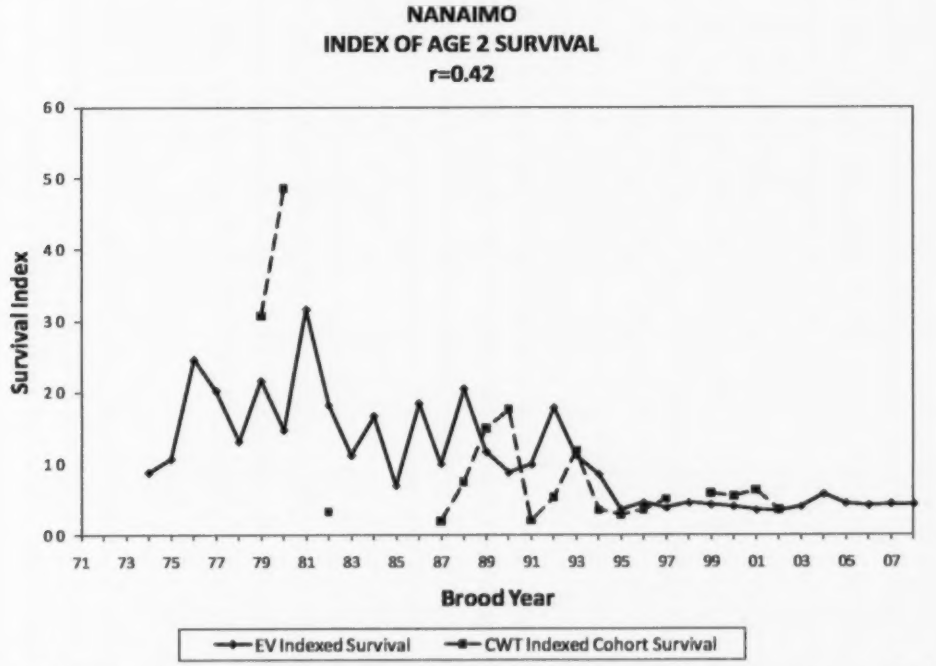

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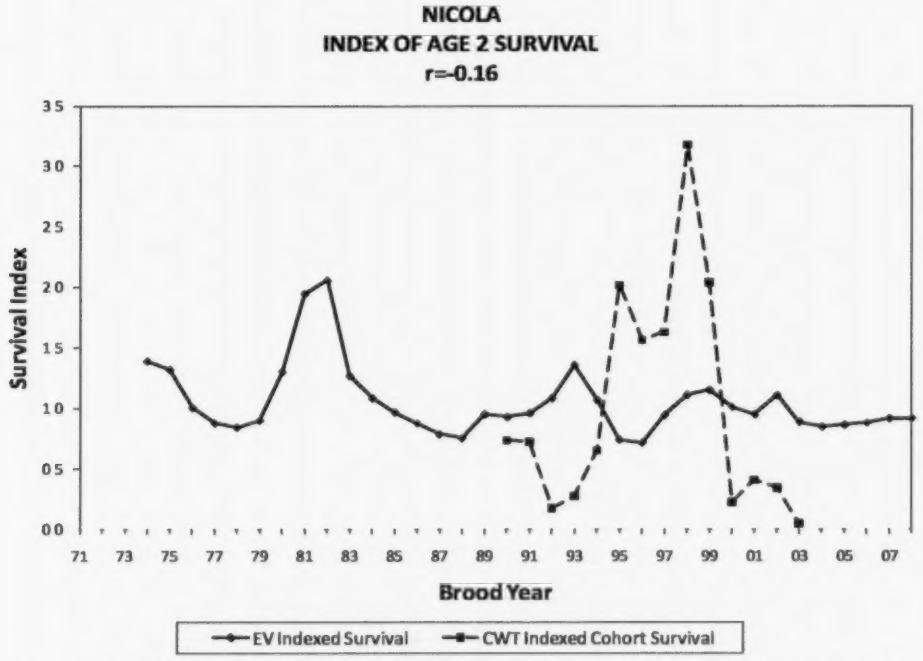

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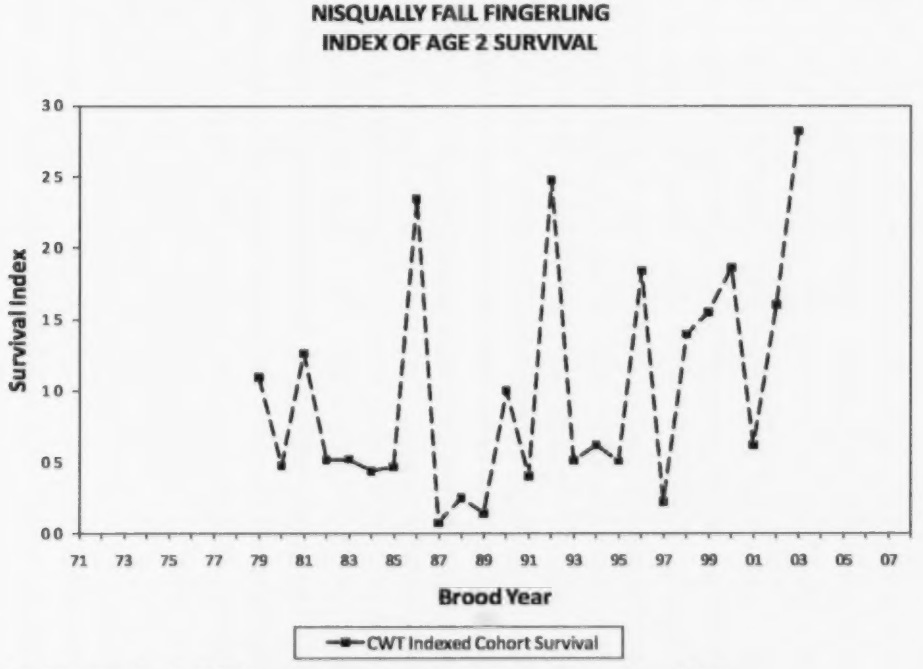

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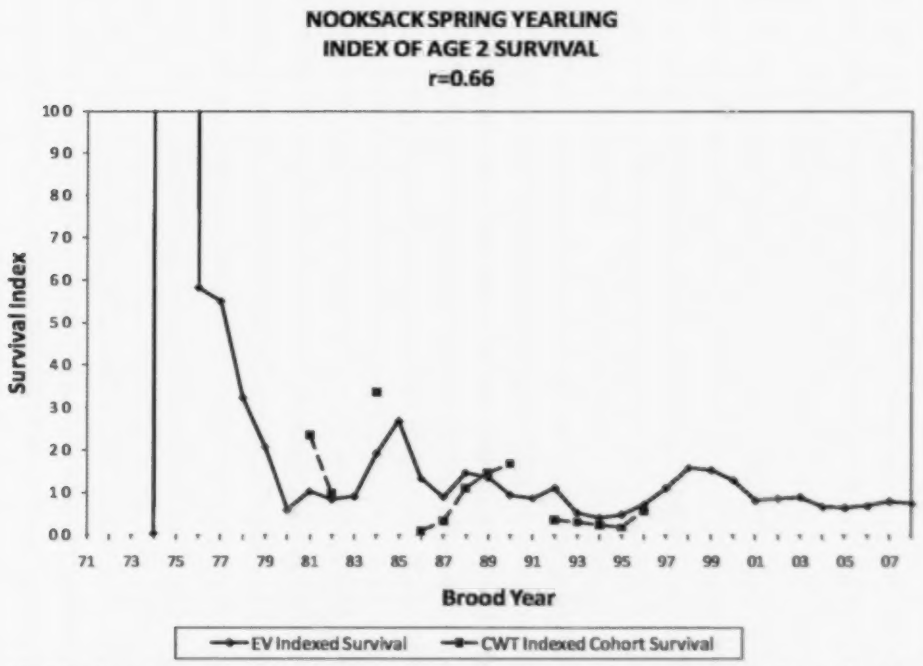

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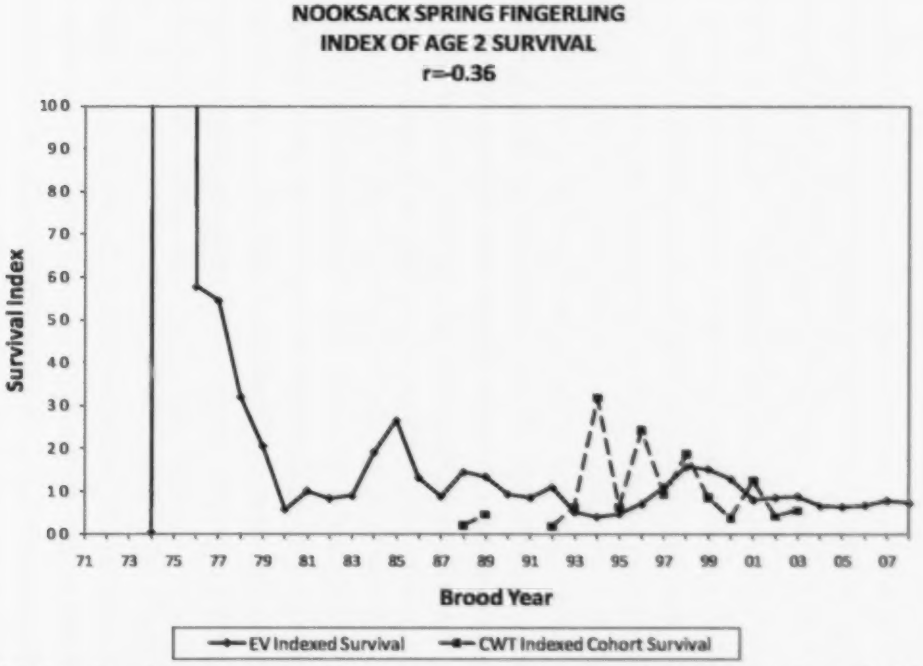

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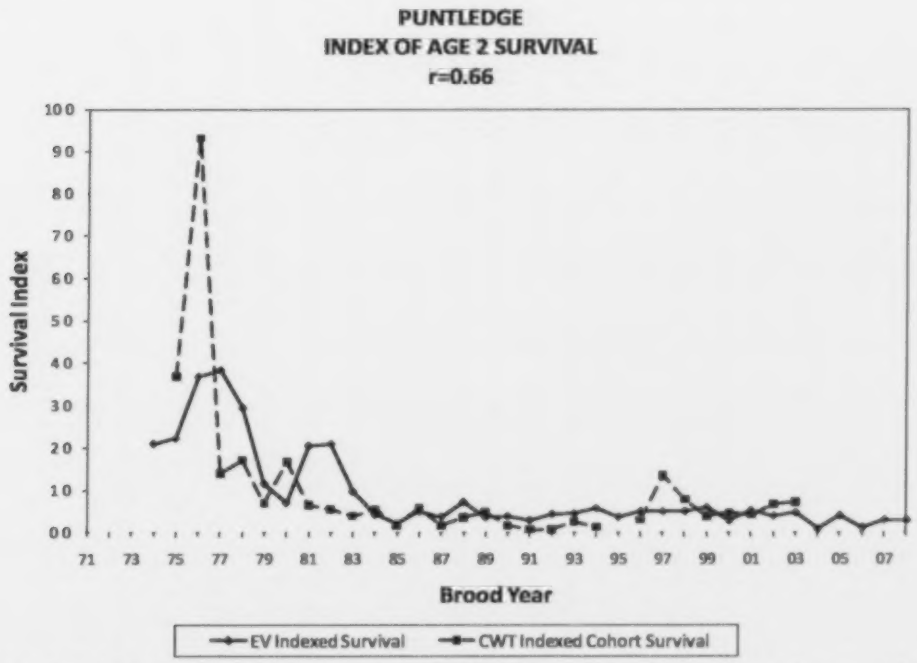

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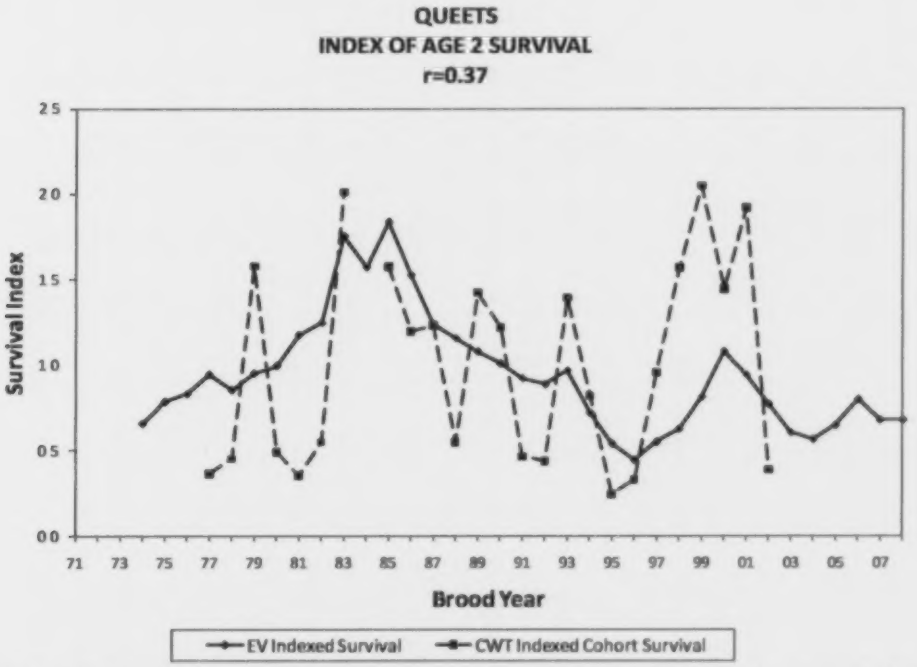

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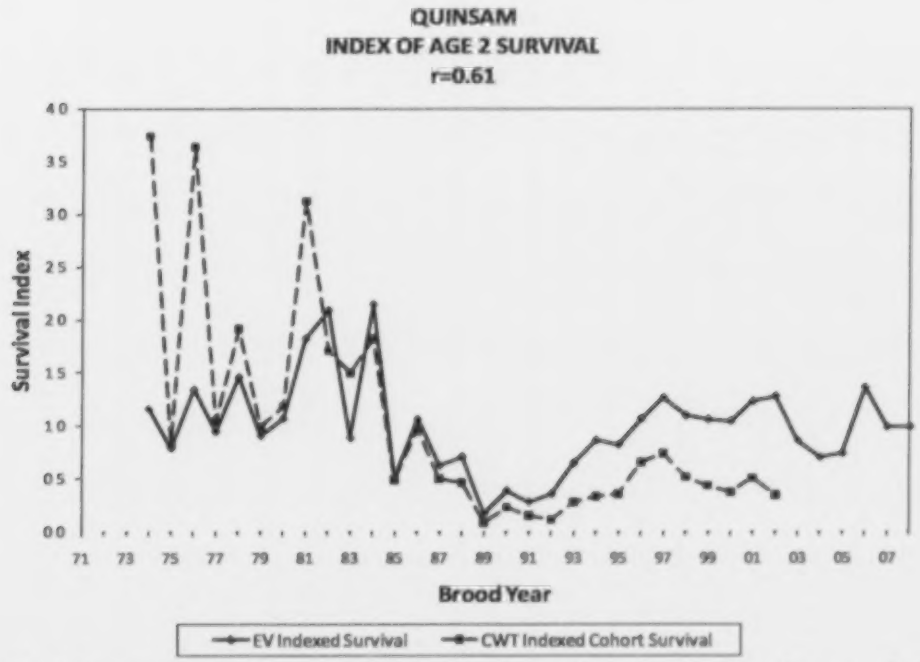

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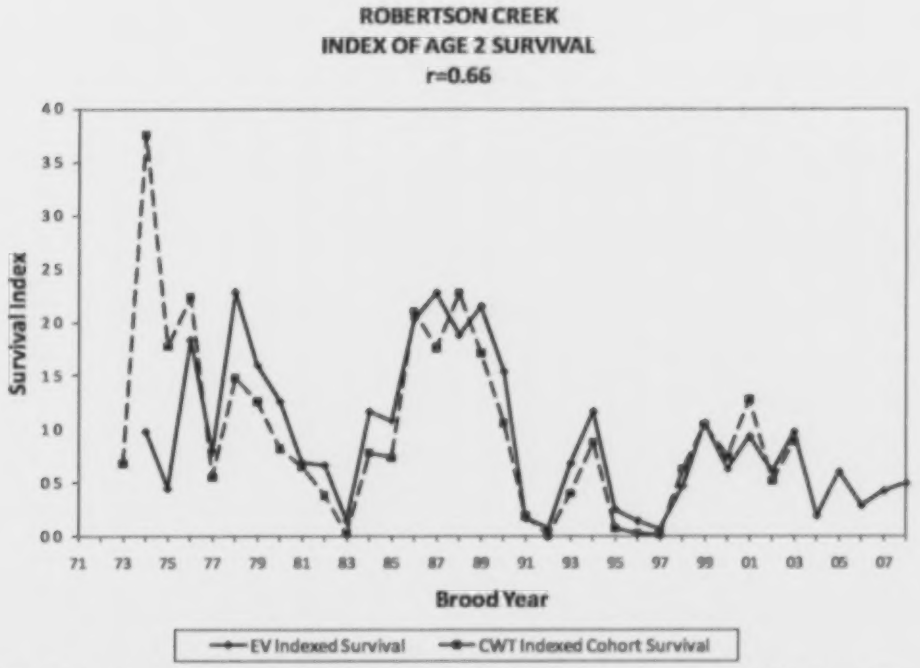

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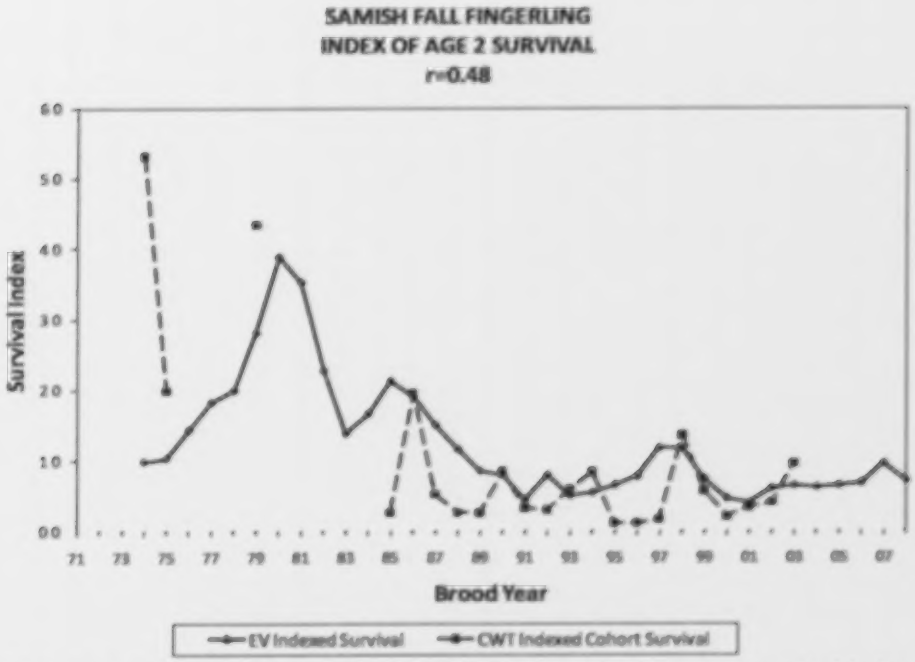

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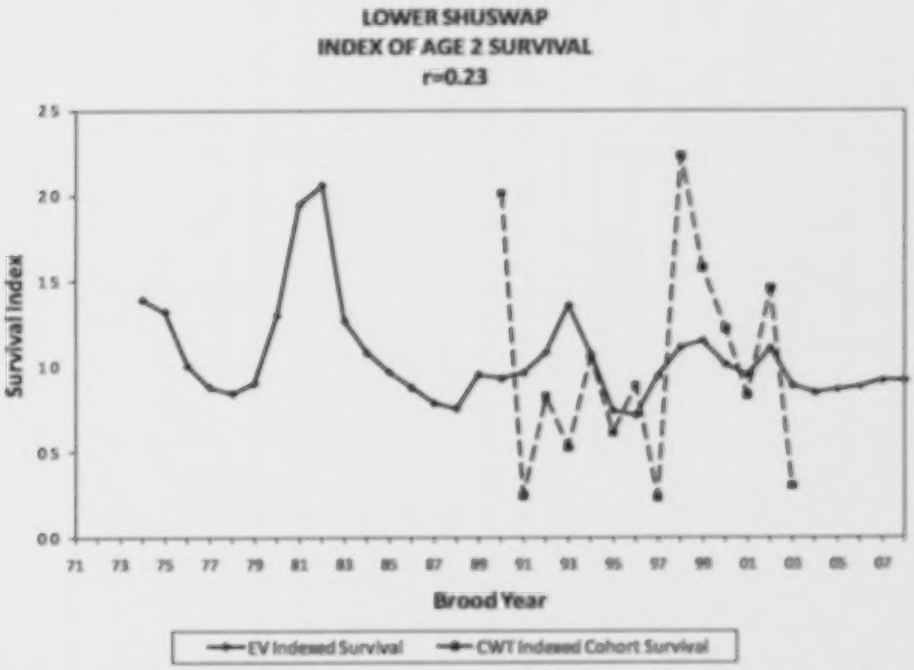

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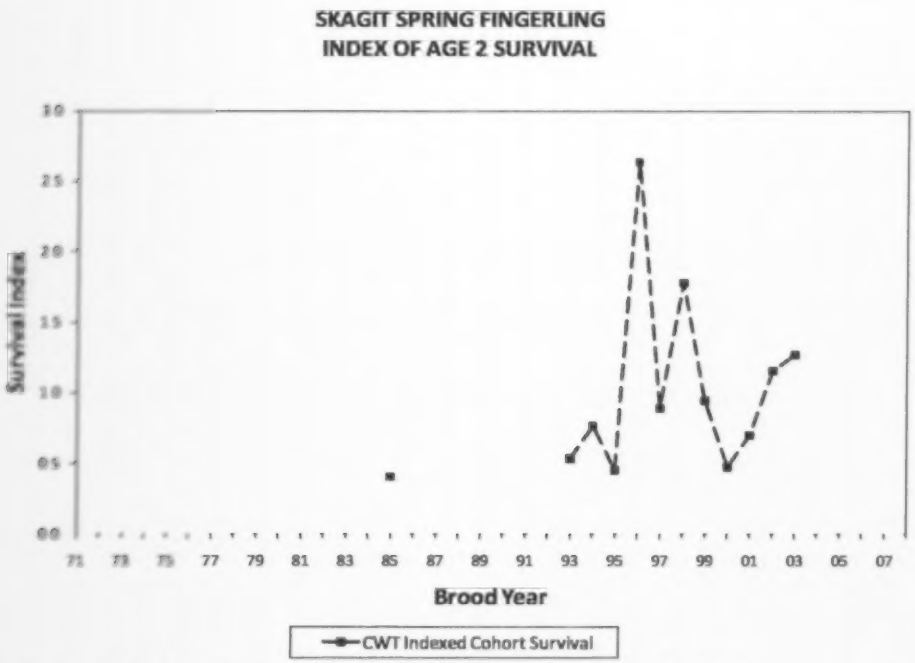

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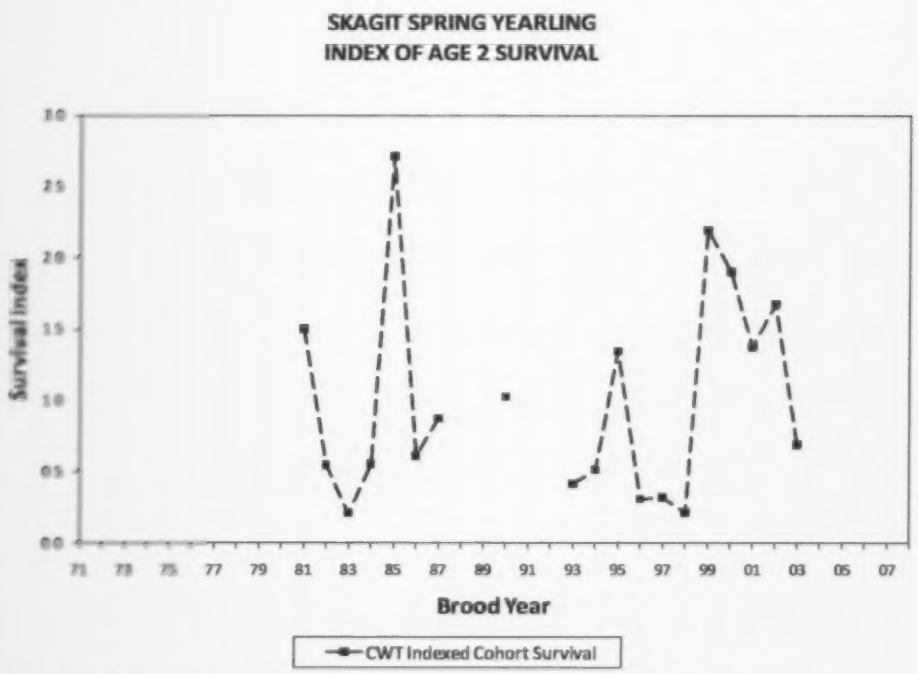

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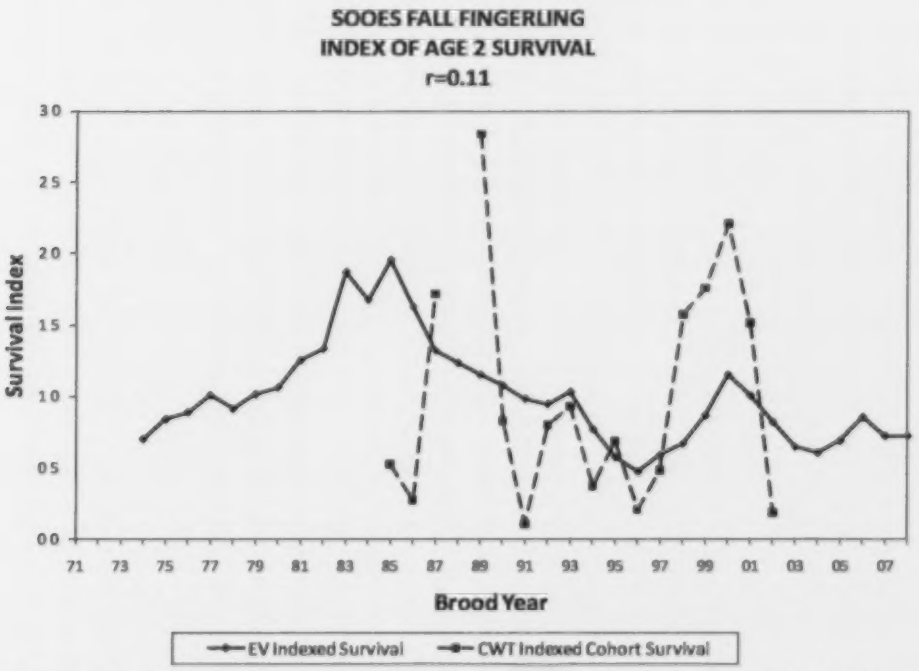

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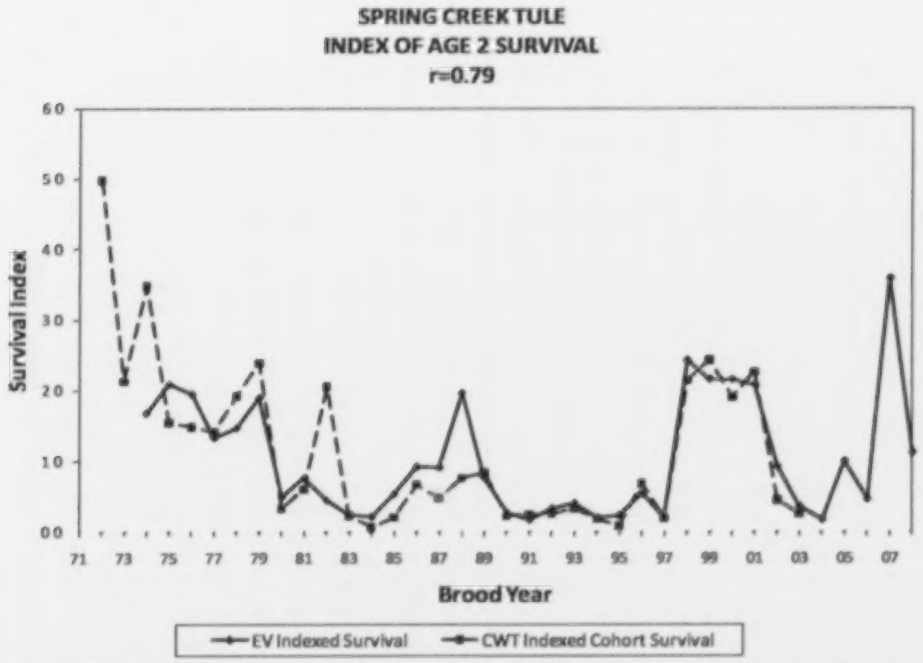

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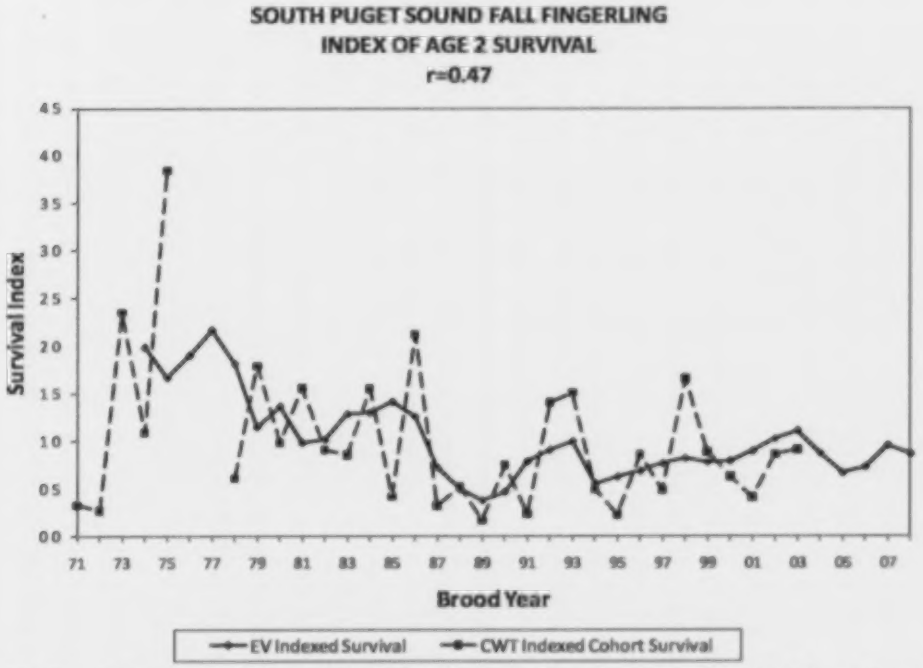

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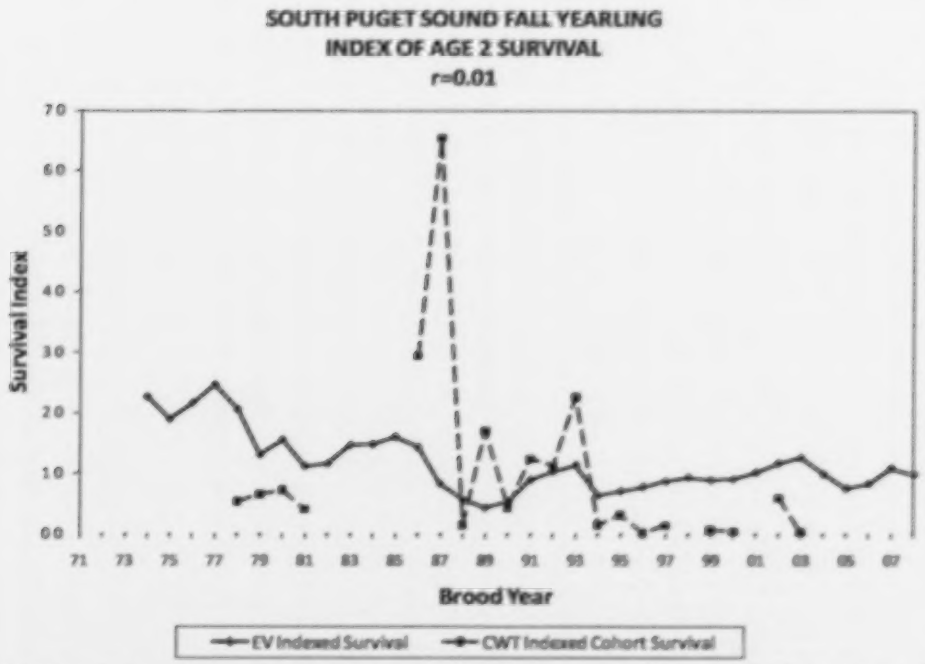

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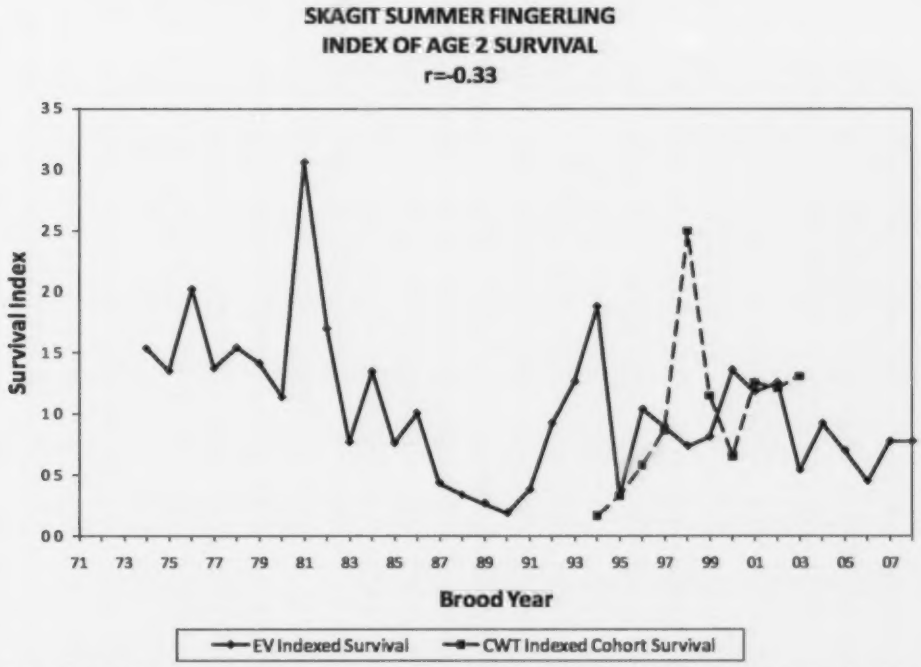

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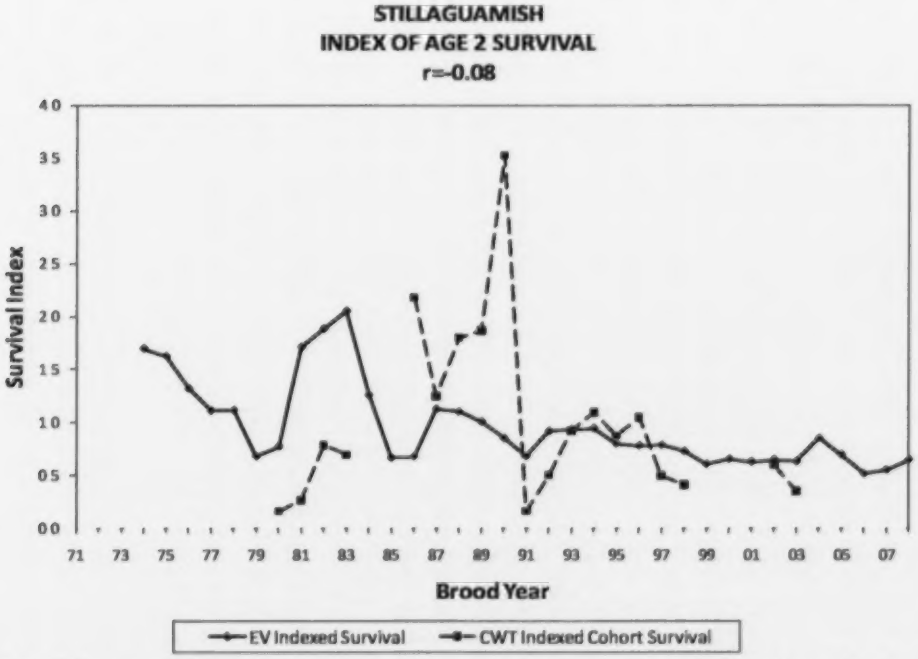

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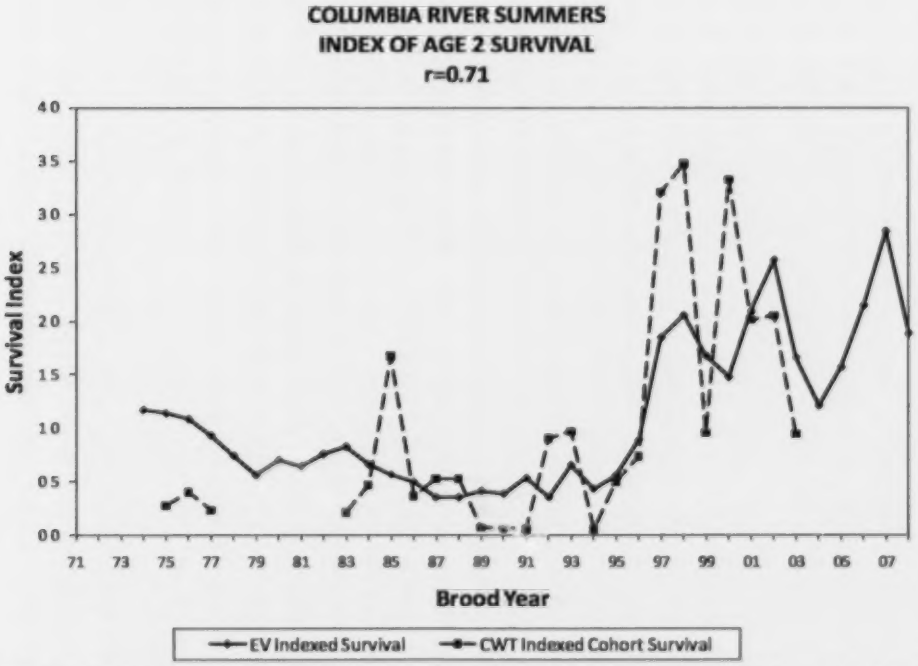

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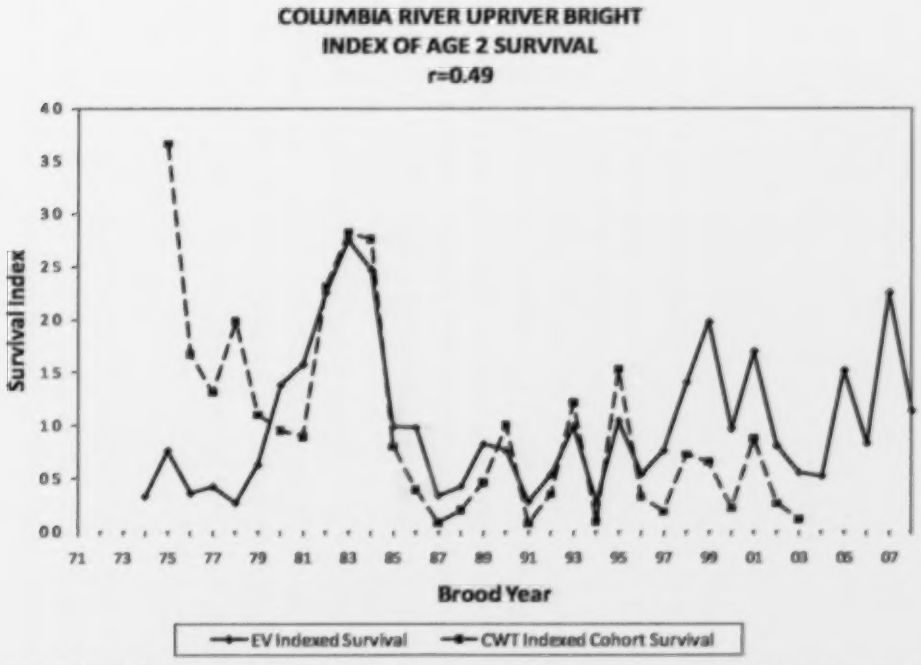

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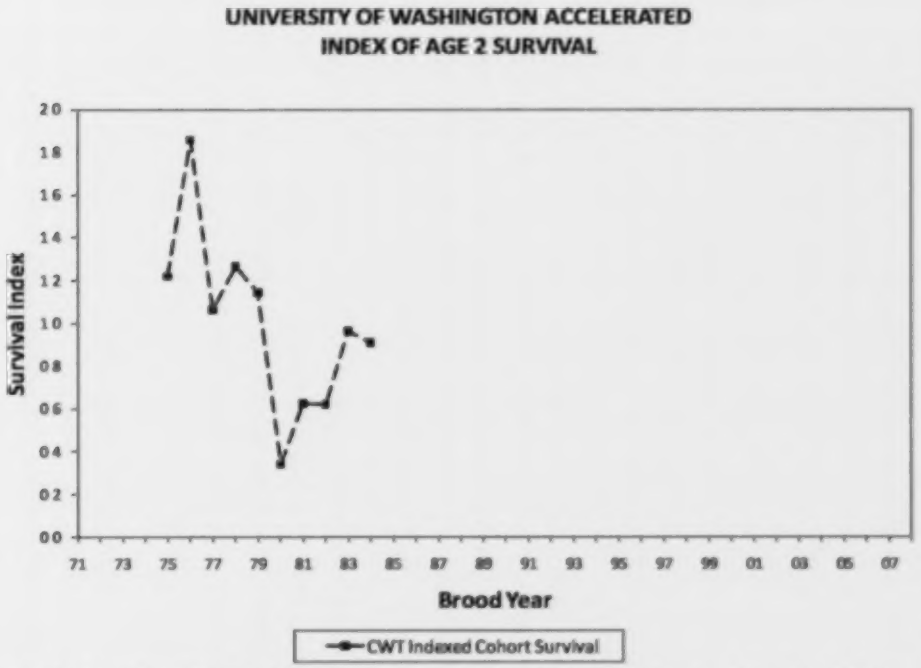

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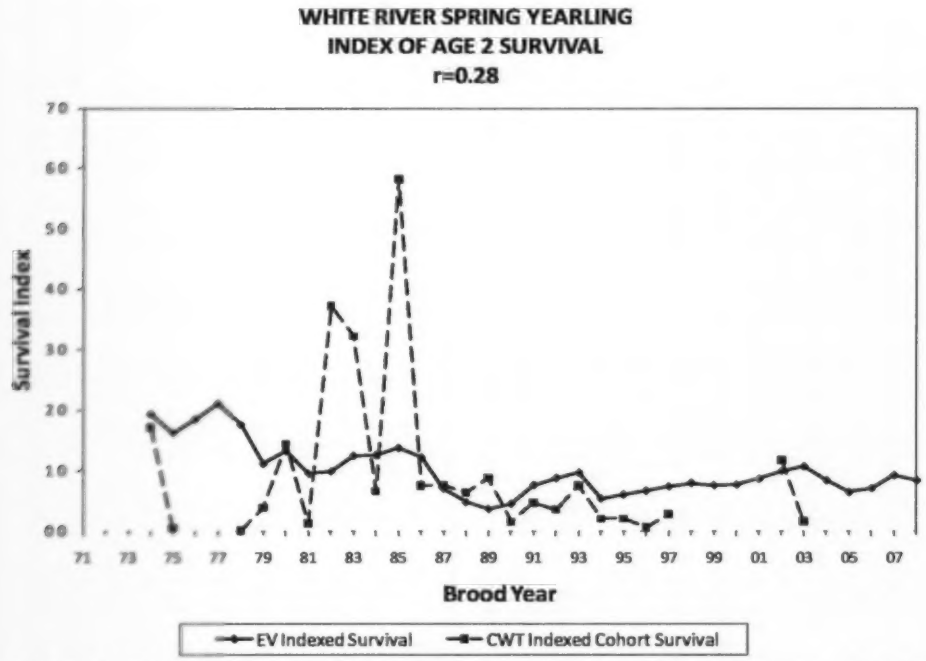

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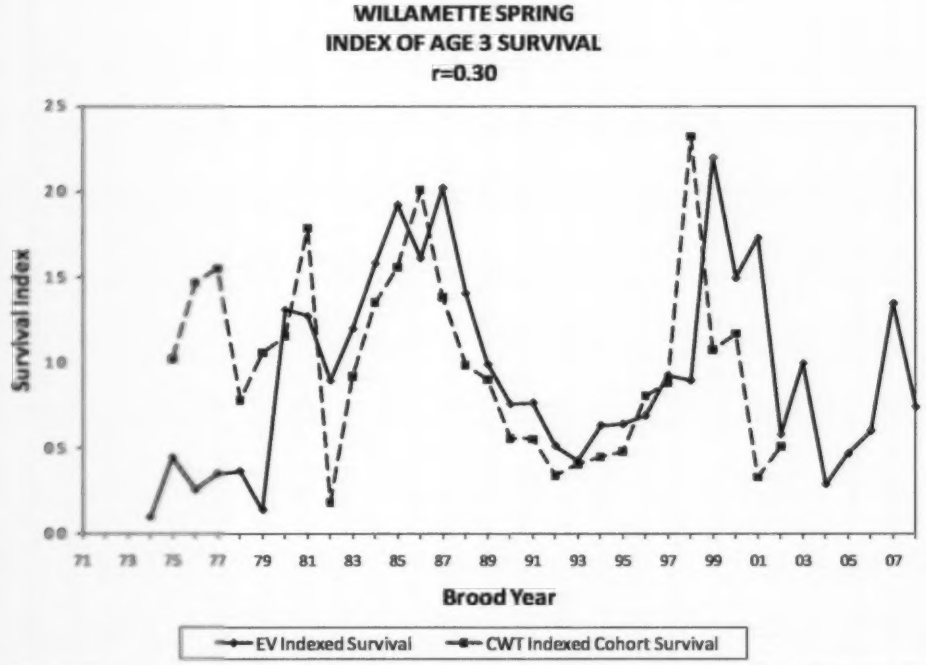

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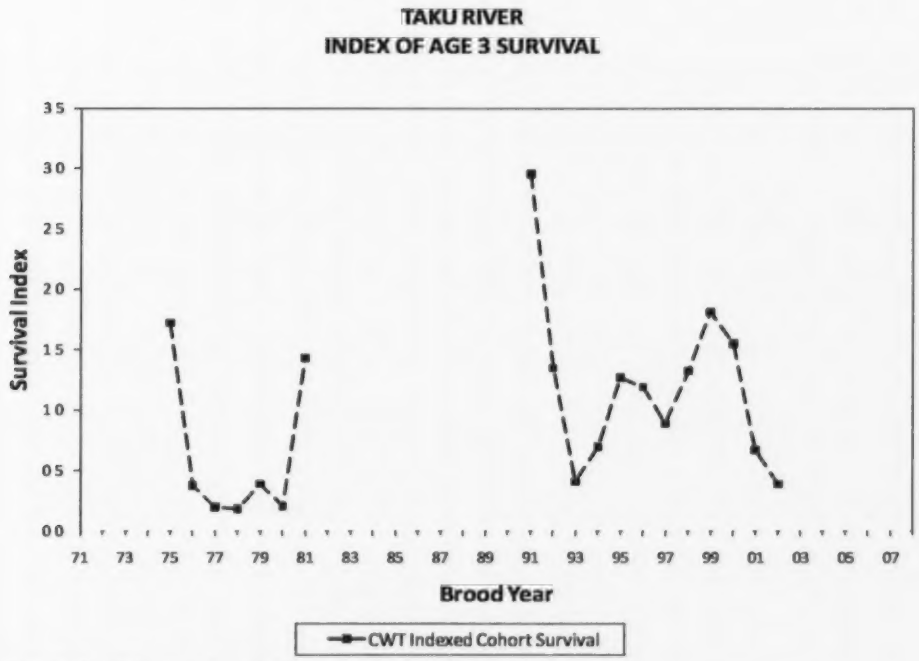

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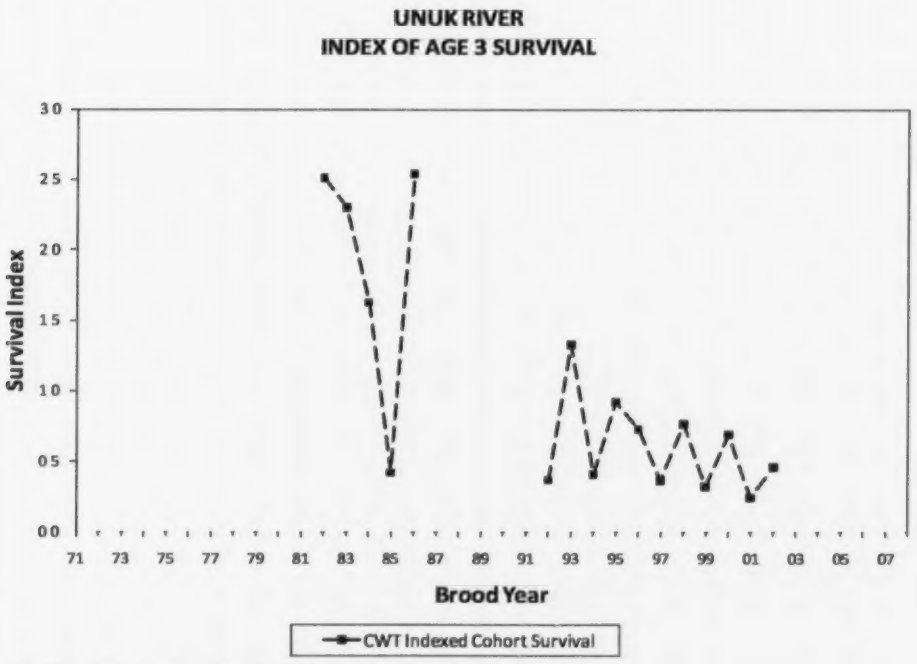

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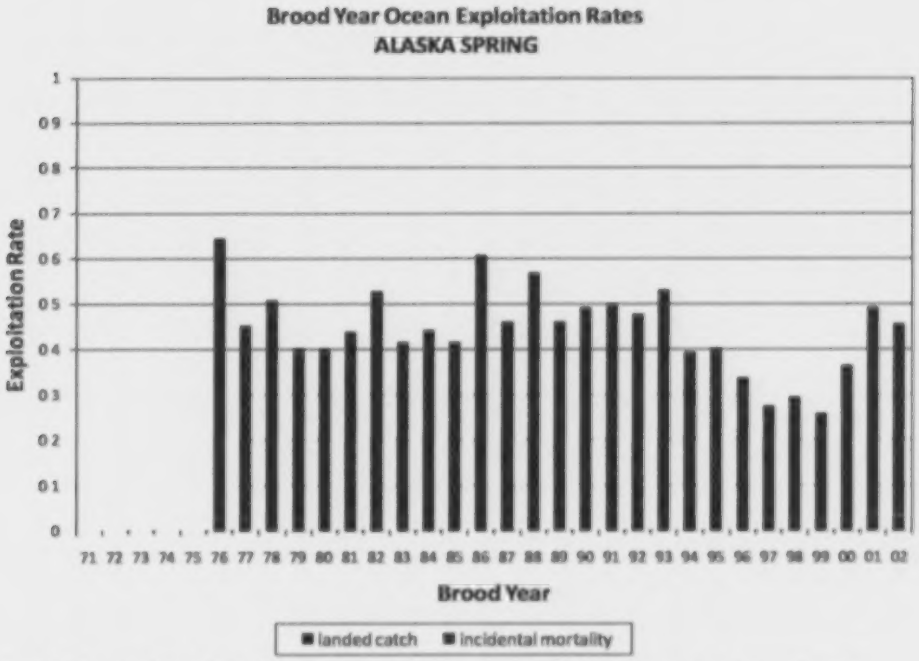

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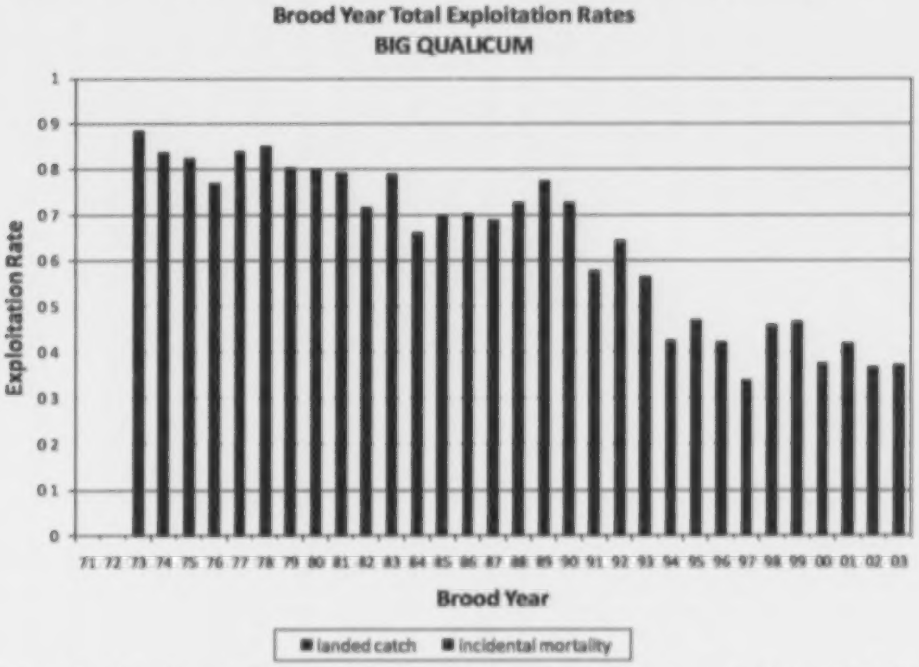

Figure E 2. Big Qualicum (Lower Strait of Georgia Hatchery and Natural) total exploitation rates by brood year.

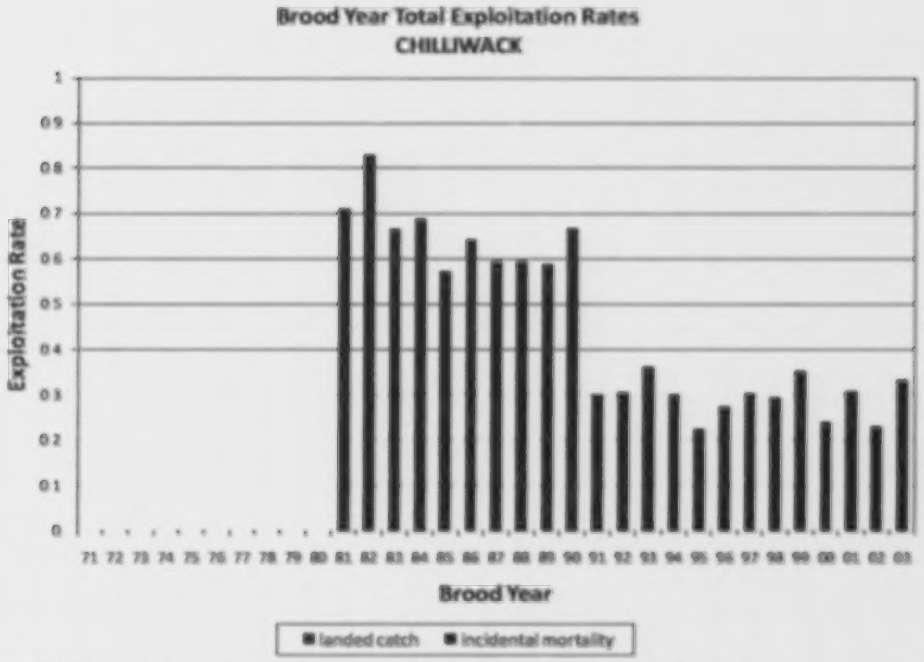

Figure E 3. Chilliwack (Fraser Late) total exploitation rates by brood year.

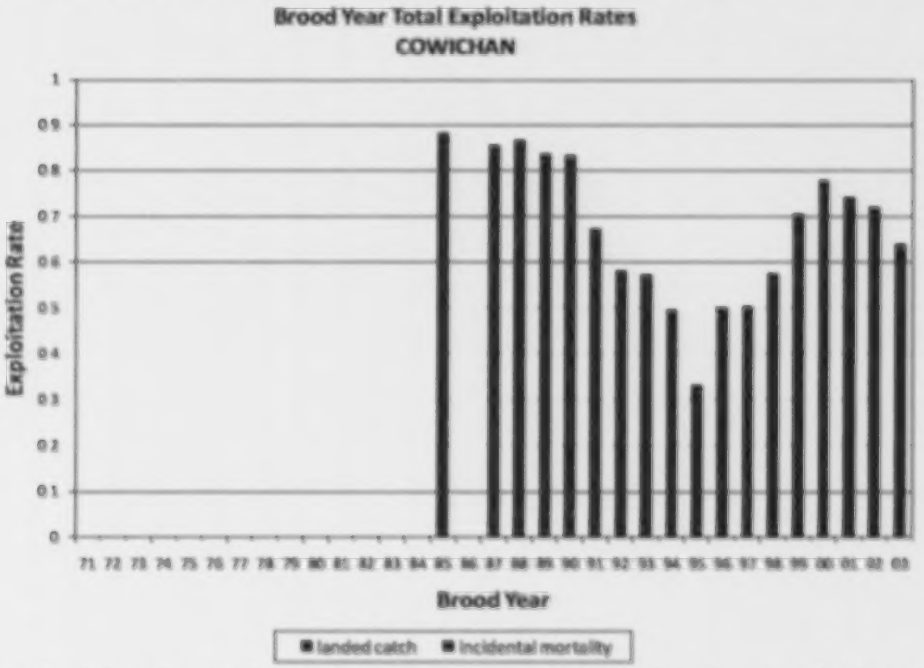

Figure E 4. Cowichan (Lower Strait of Georgia Natural) total exploitation rates by brood year.

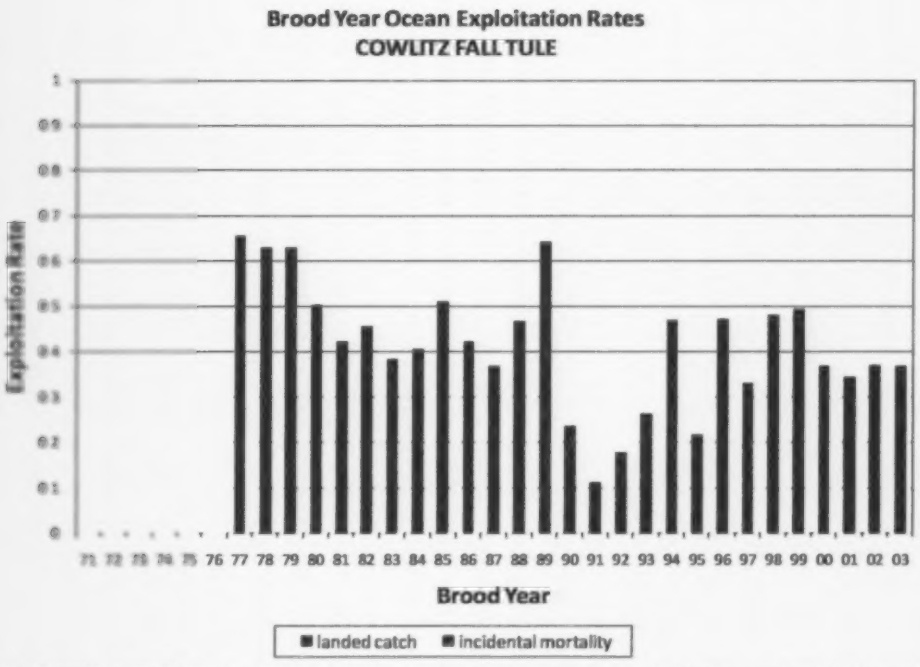

Figure E 5. Cowlitz Fall Tule (Fall Cowlitz Hatchery) ocean exploitation rates by brood year.

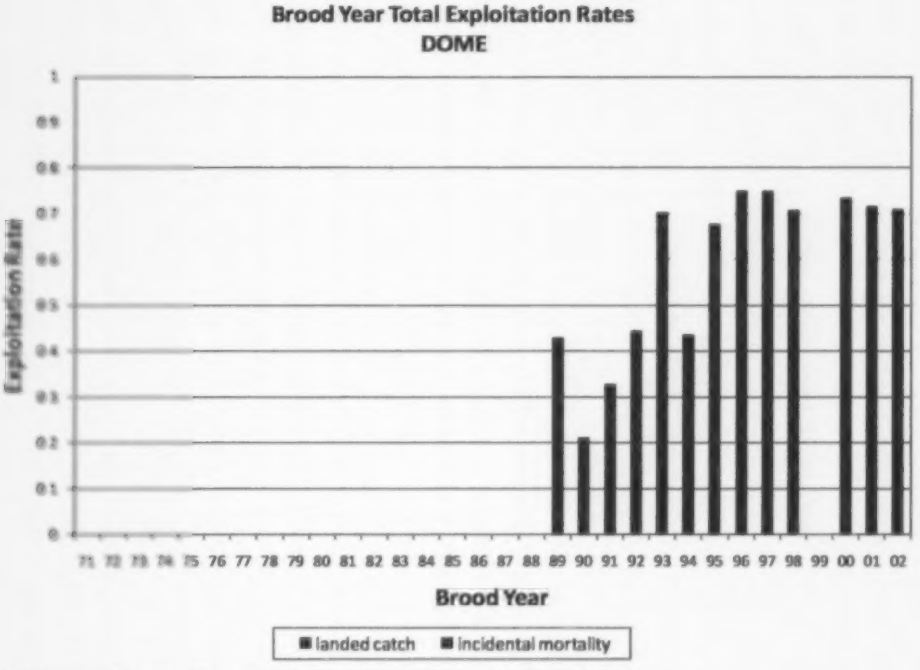

Figure E 6. Dome (Fraser Early) total exploitation rates by brood year.

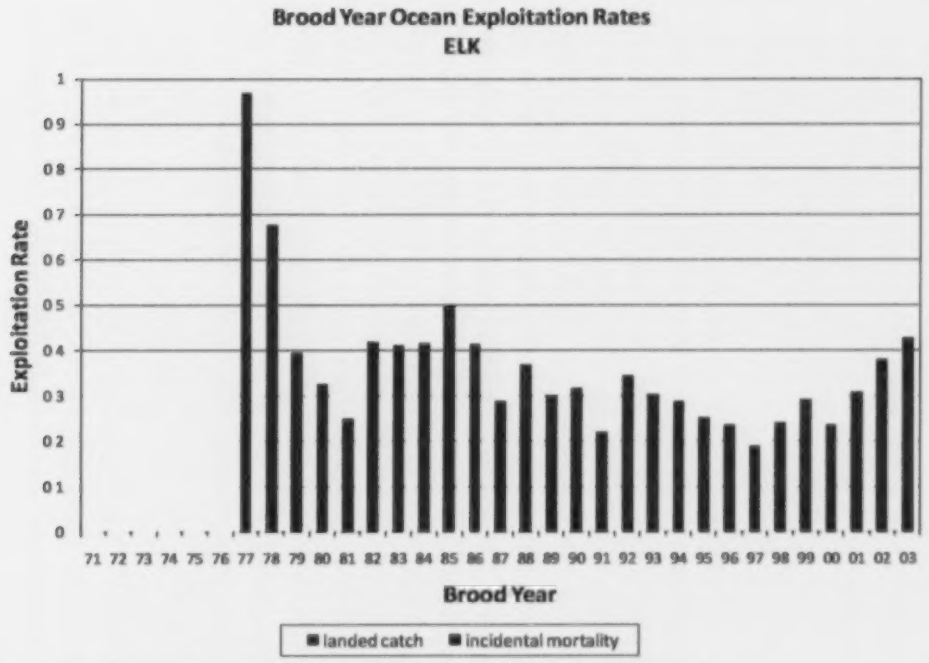

Figure E 7. Elk (Oregon Coast) ocean exploitation rates by brood year.

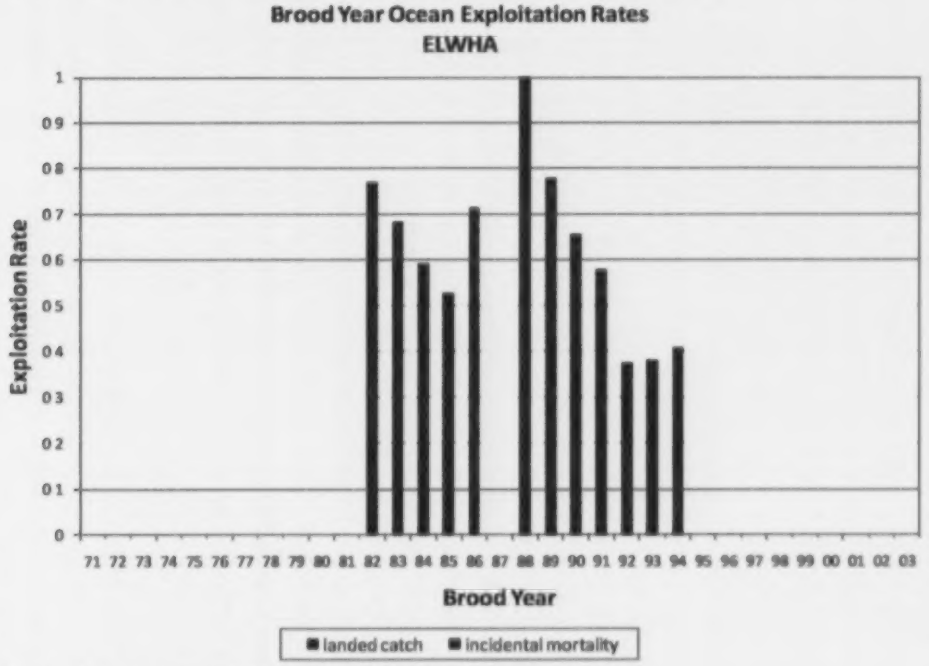

Figure E 8. Elwha ocean exploitation rates by brood year.

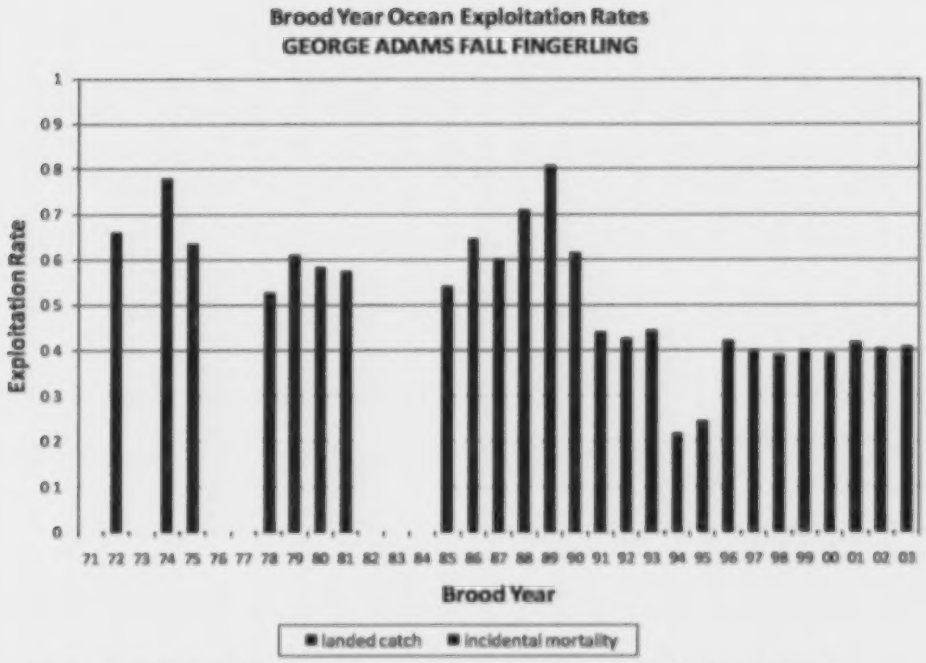

Figure E 9. George Adams Fall Fingerling ocean exploitation rates by brood year.

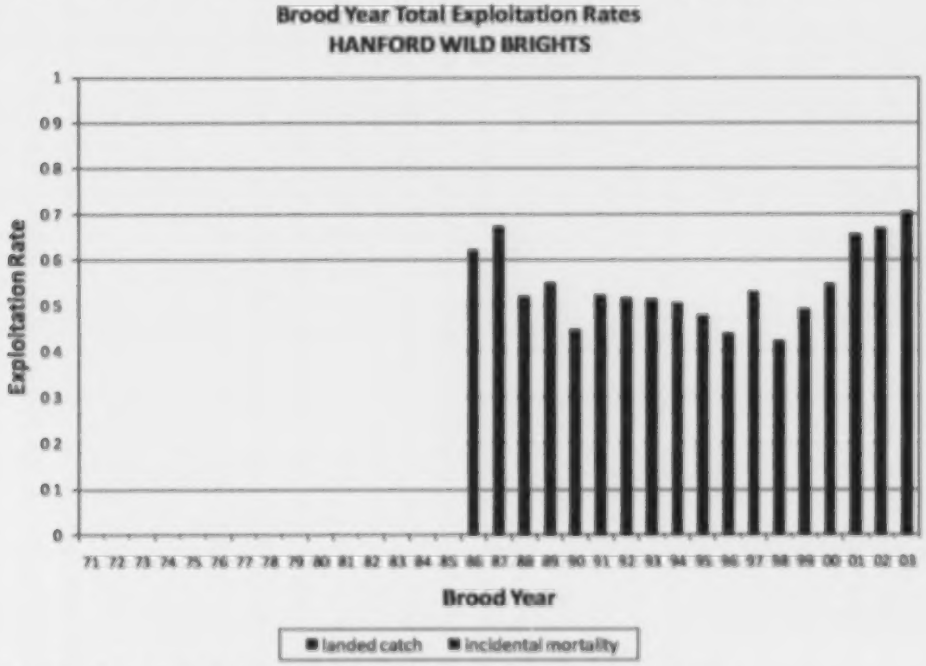

Figure E 10. Hanford Wild Brights total exploitation rates by brood year.

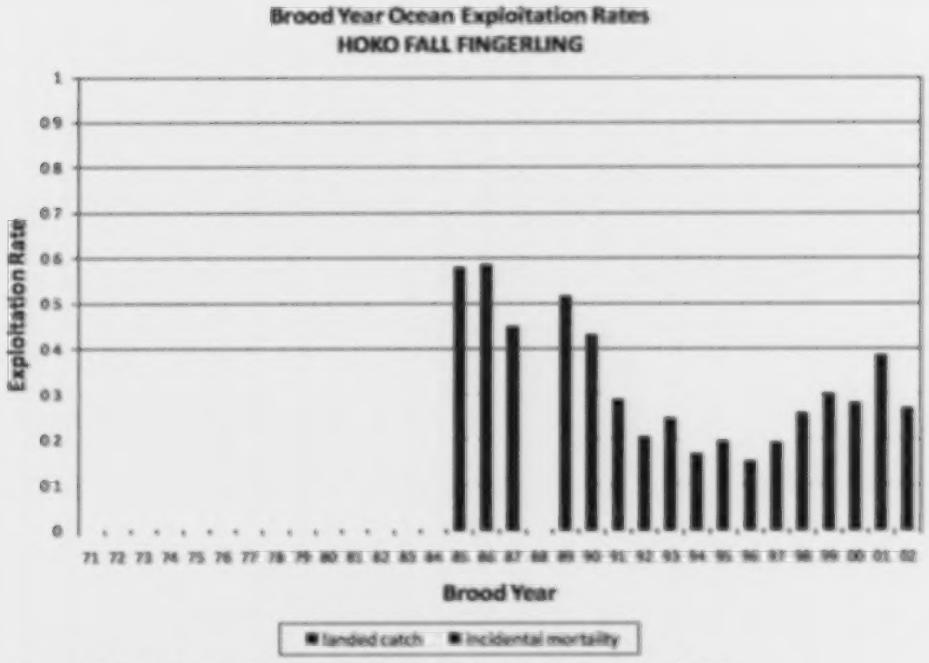

Figure E 11. Hoko Fall Fingerling ocean exploitation rates by brood year.

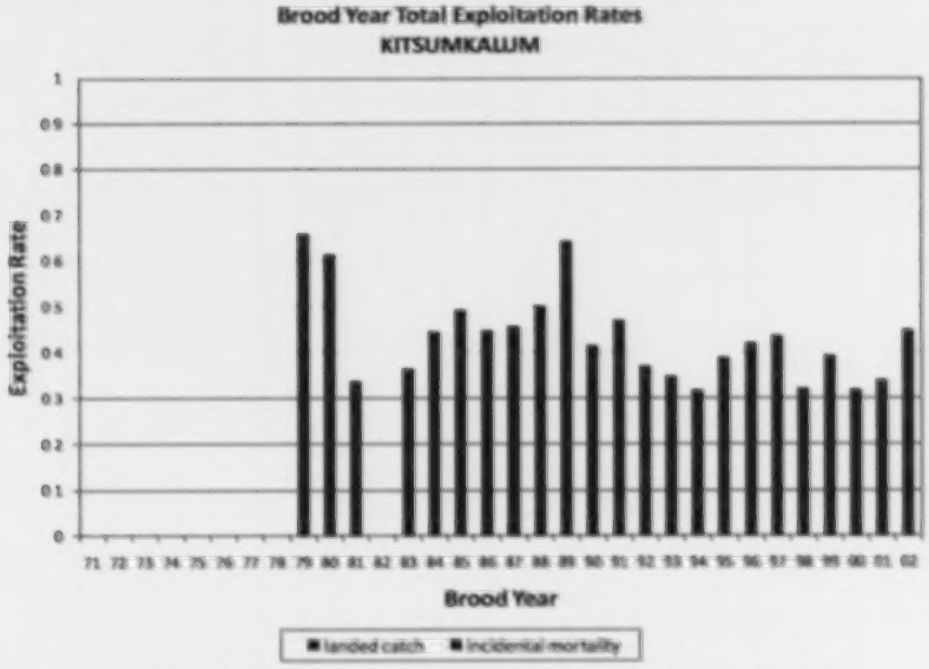

Figure E 12. Kitsumkalum (North/Central BC) total exploitation rates by brood year.

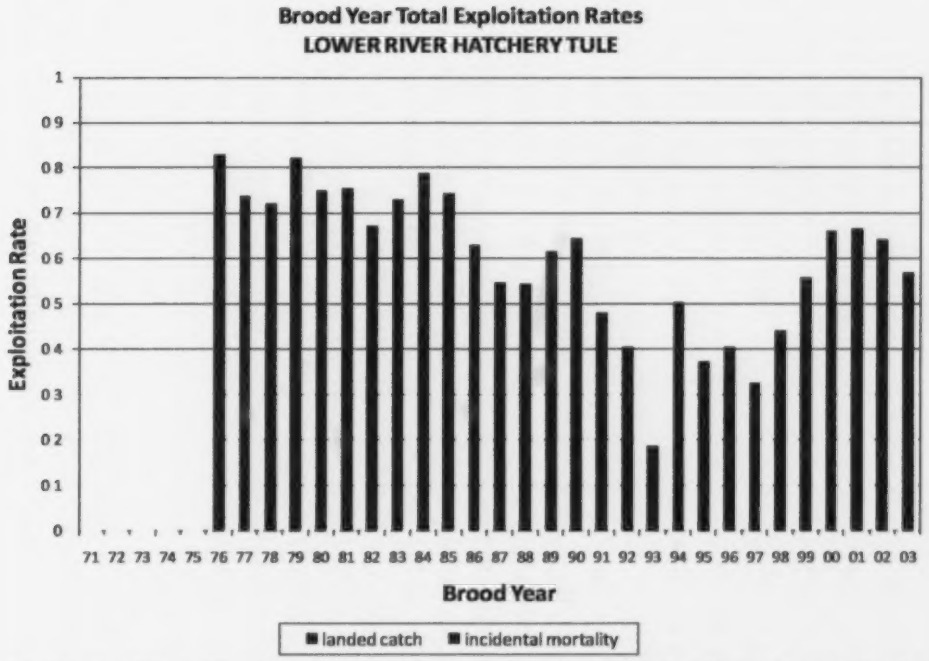

Figure E 13. Lower River Hatchery Tule (Lower Bonneville Hatchery) total exploitation rates by brood year.

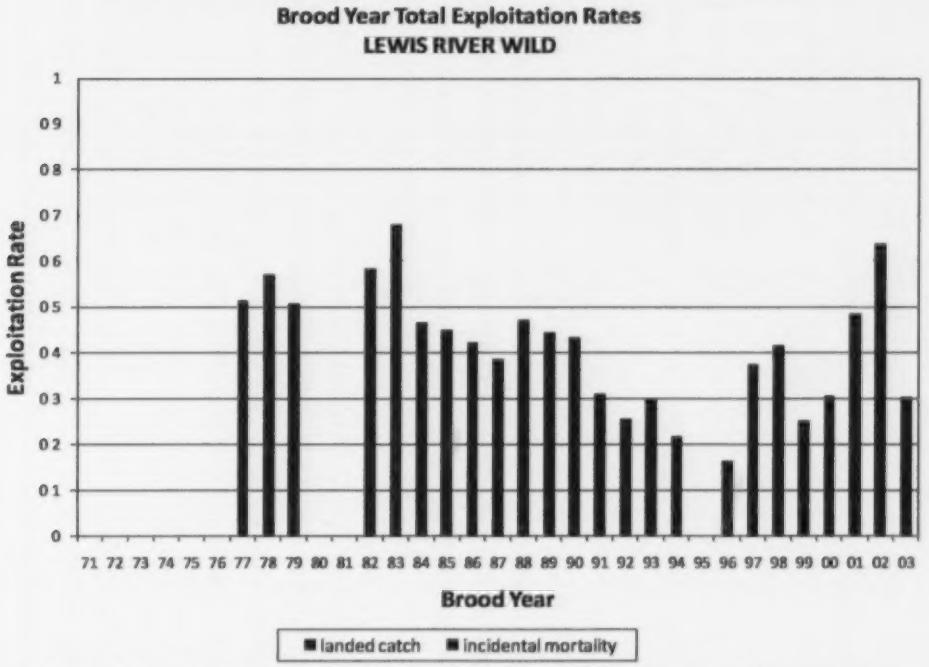

Figure E 14. Lewis River Wild (Lewis River Wild) total exploitation rates by brood year.

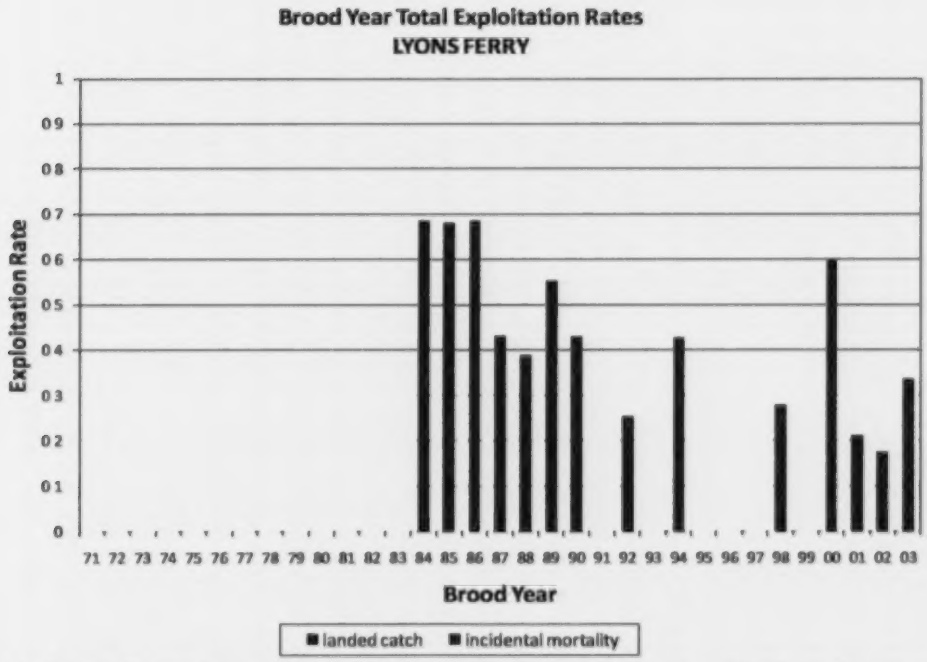

Figure E 15. Lyons Ferry (Lyons Ferry Hatchery) total exploitation rates by brood year.

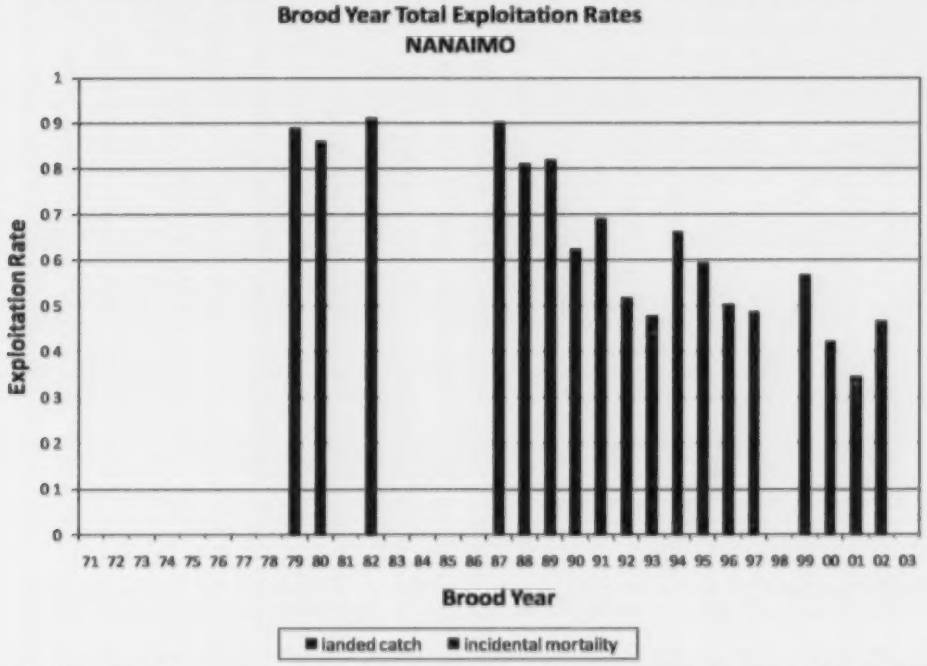

Figure E 16. Nanaimo (Lower Strait of Georgia Natural) total exploitation rates by brood year.

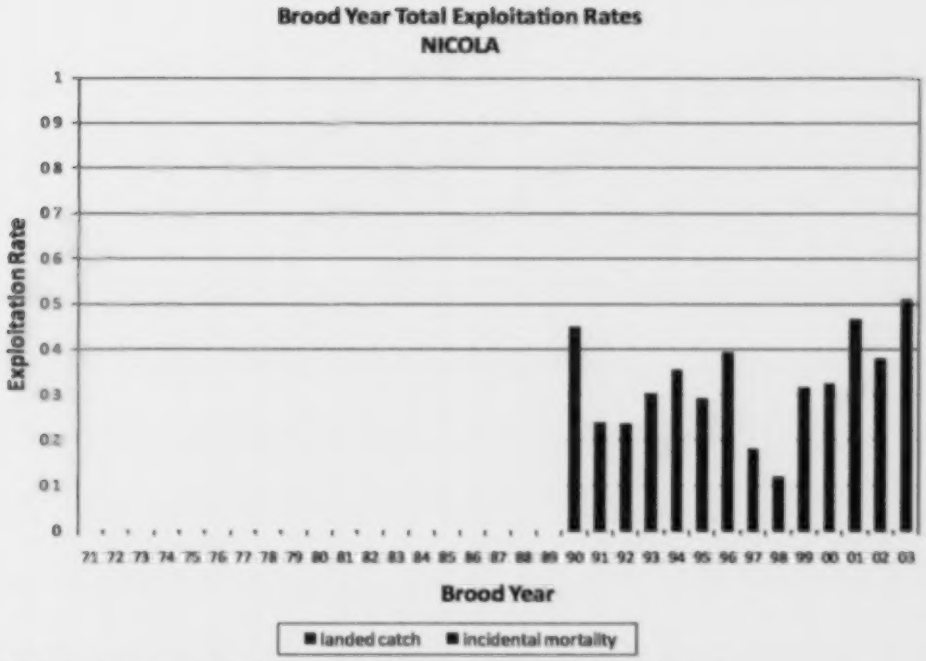

Figure E 17. Nicola (Fraser Early) total exploitation rates by brood year.

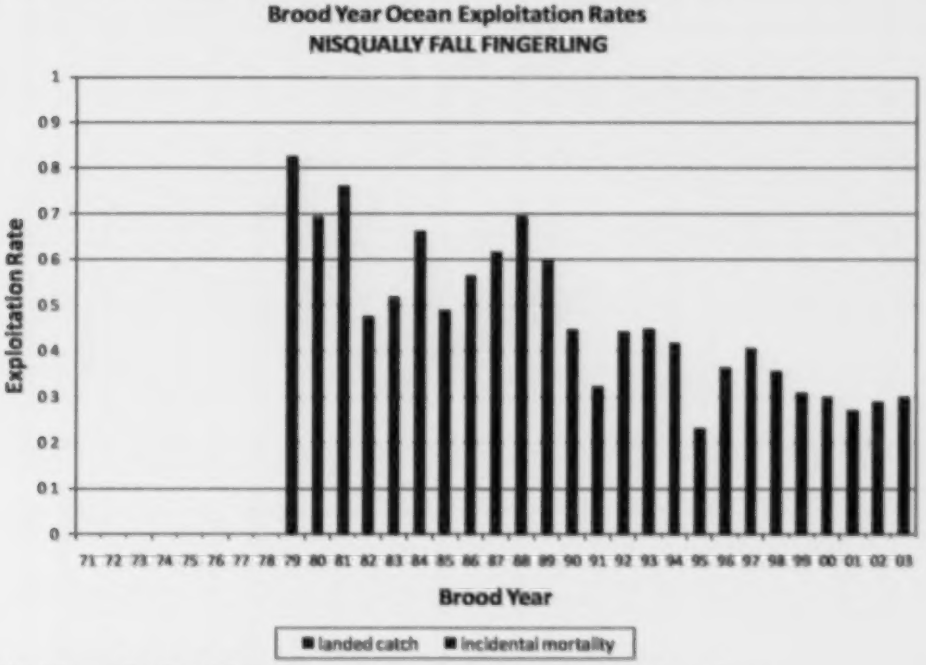

Figure E 18. Nisqually Fall Fingerling ocean exploitation rates by brood year.

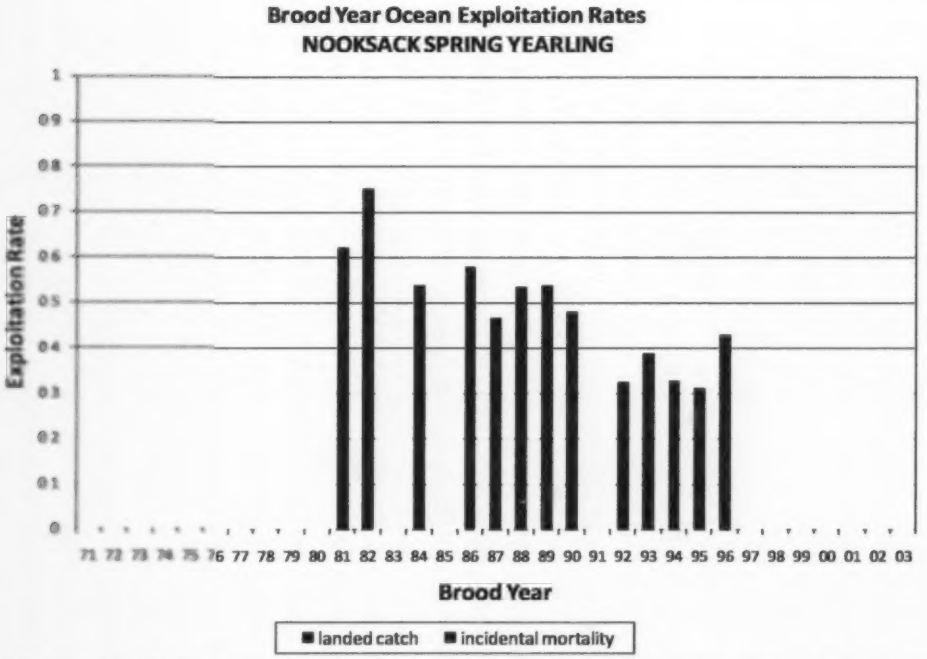

Figure E 19. Nooksack Spring Yearling (Nooksack Spring Yearling) ocean exploitation rates by brood year.

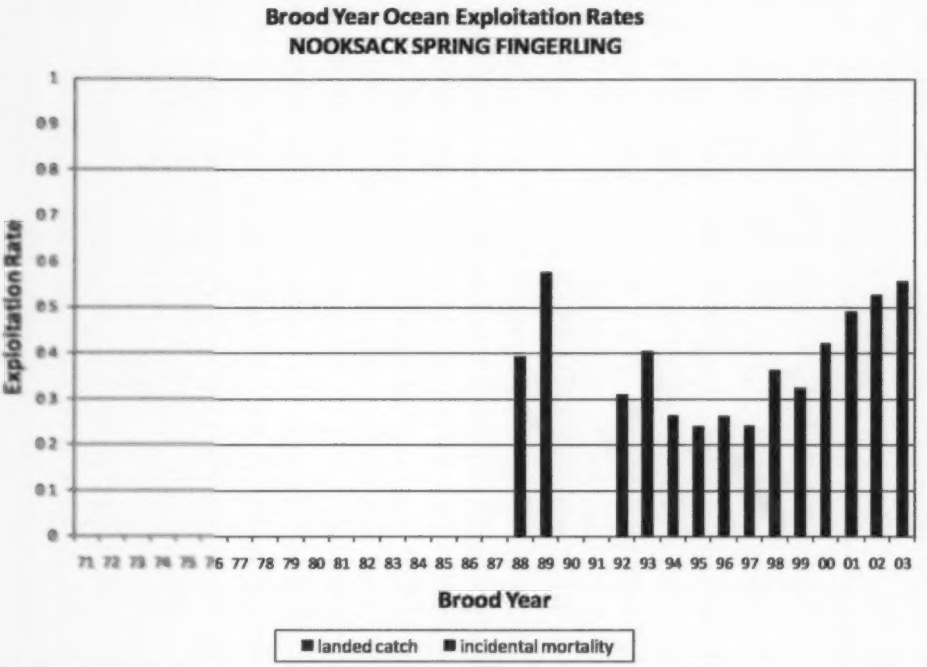

Figure E 20. Nooksack Spring Fingerling (Nooksack Spring Yearling) ocean exploitation rates by brood year.

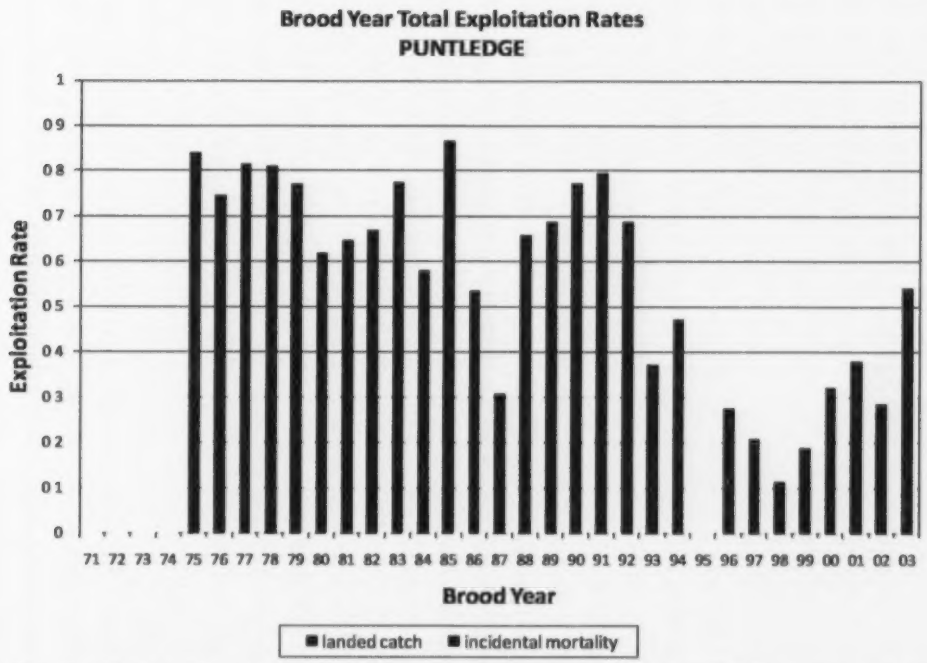

Figure E 21. Puntledge (Lower Strait of Georgia Hatchery) total exploitation rates by brood year.

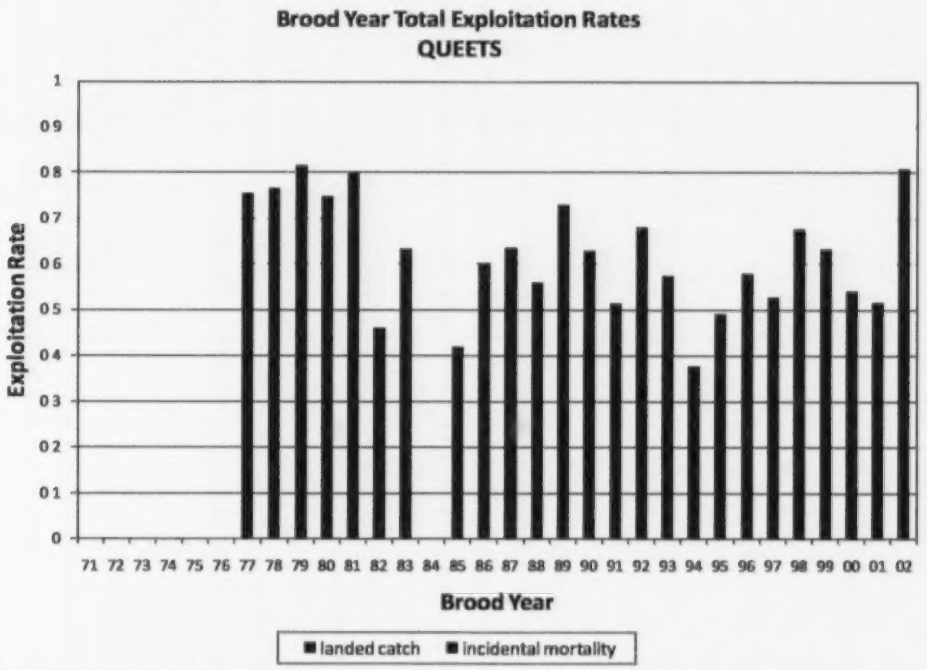

Figure E 22. Queets (Washington Coastal Wild) total exploitation rates by brood year.

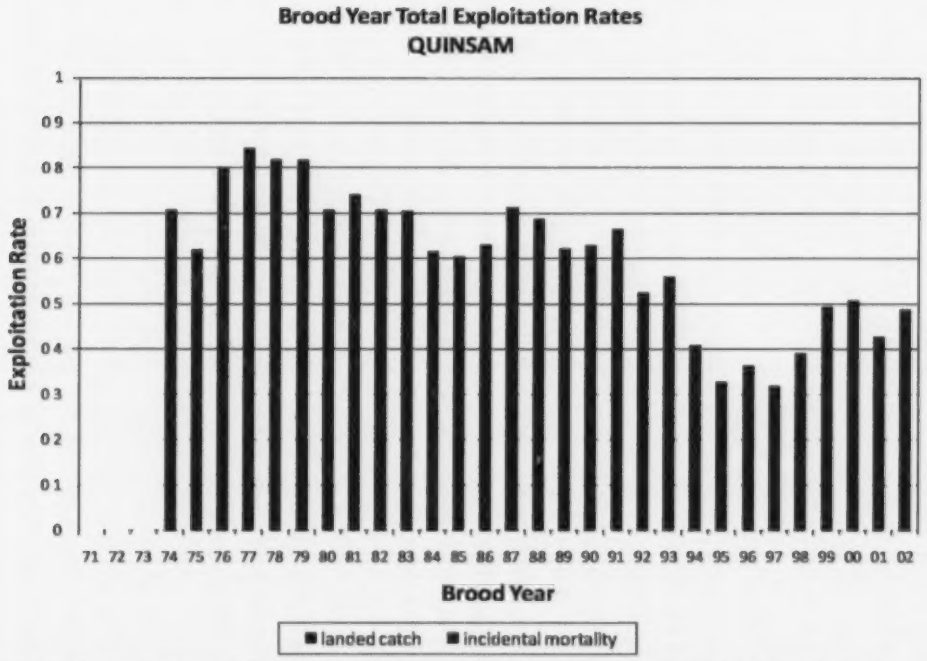

Figure E 23. Quinsam (Upper Strait of Georgia) total exploitation rates by brood year.

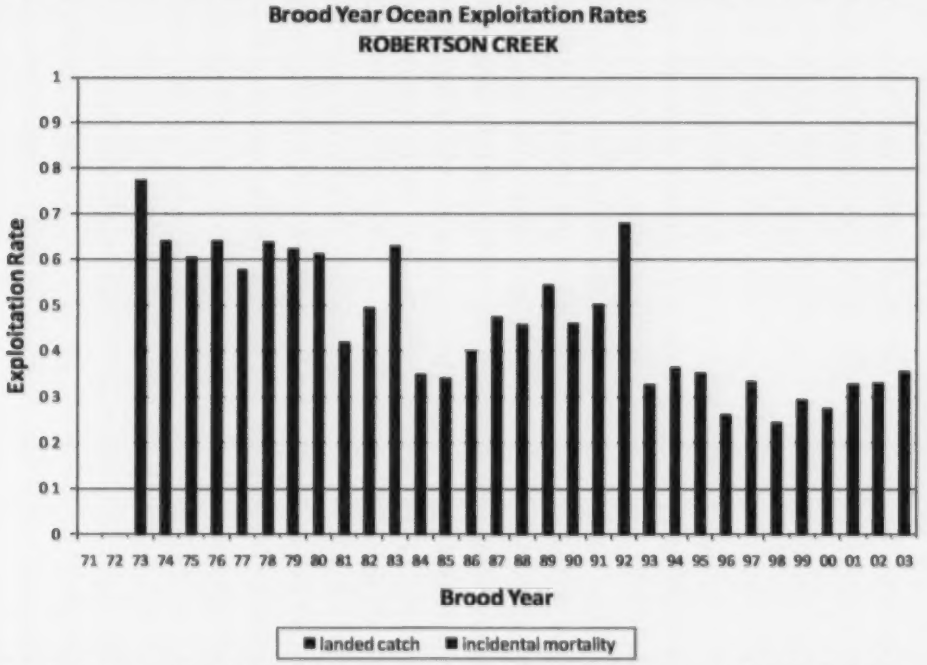

Figure E 24. Robertson Creek (WCVI Hatchery and Natural) ocean exploitation rates by brood year.

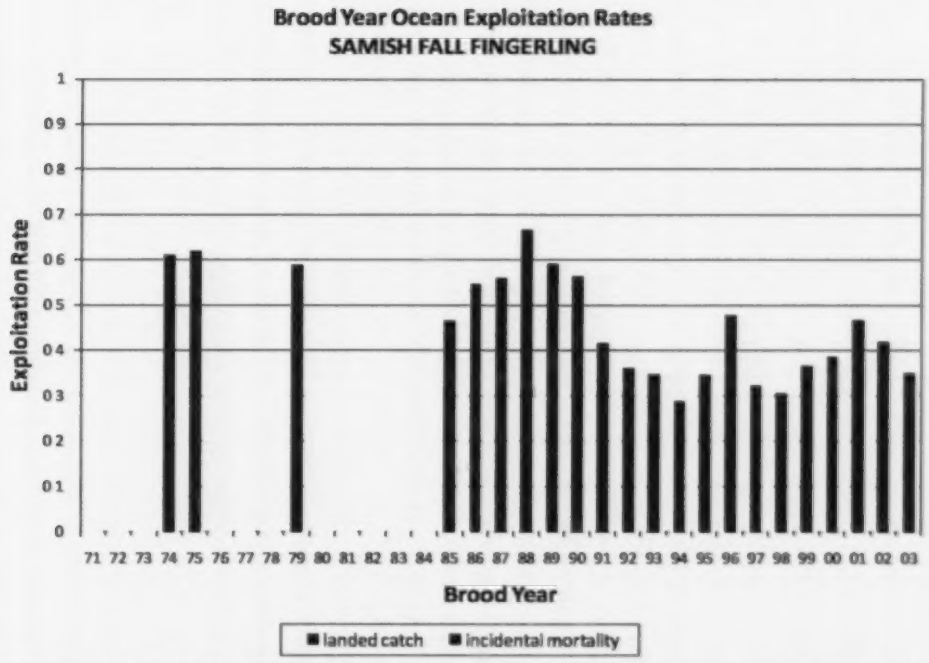

Figure E 25. Samish Fall Fingerling (Nooksack Fall Fingerling) ocean exploitation rates by brood year.

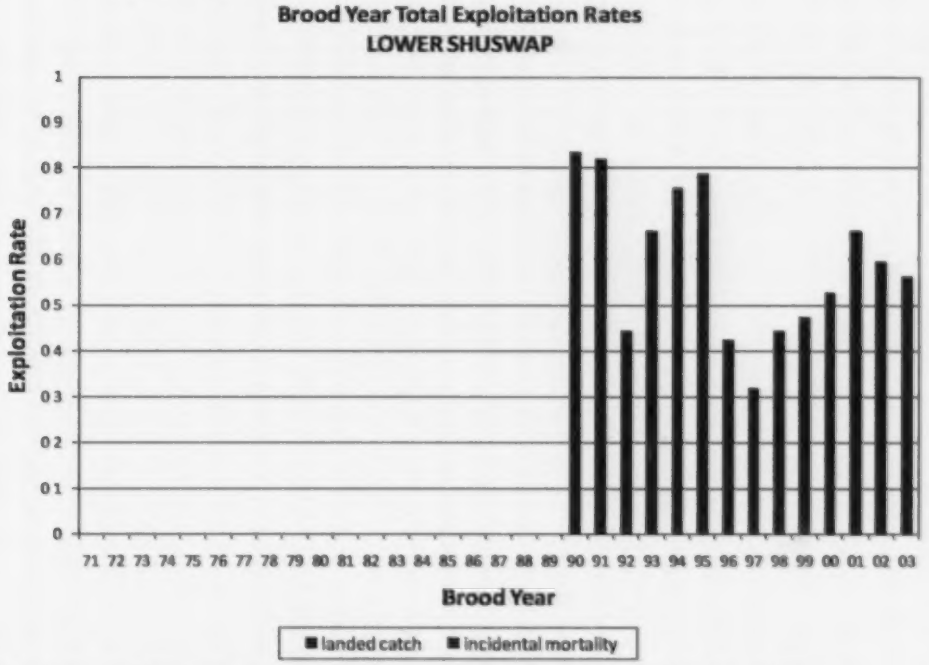

Figure E 26. Lower Shuswap (Fraser Early) total exploitation rates by brood year.

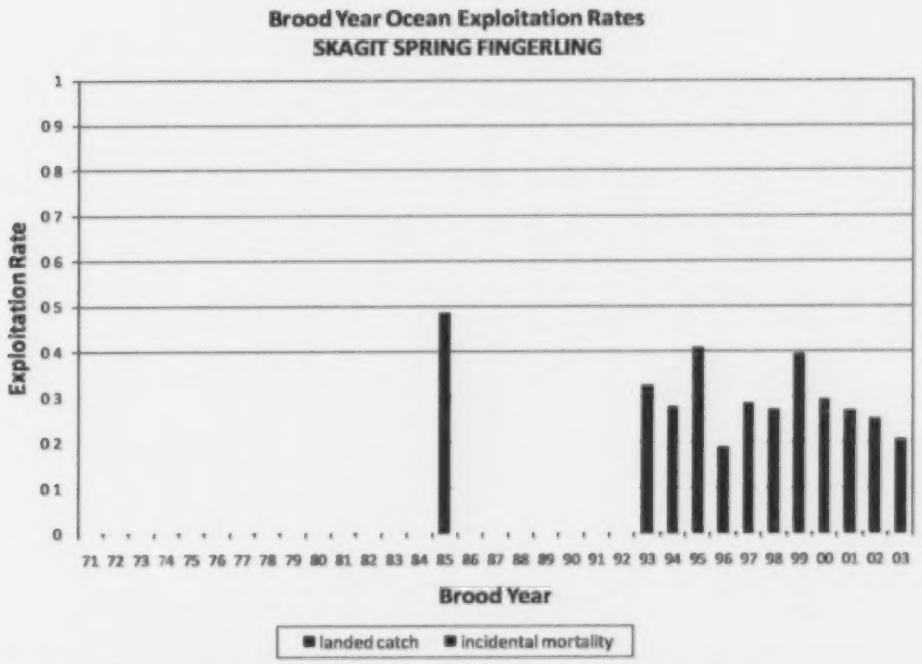

Figure E 27. Skagit Spring Fingerling ocean exploitation rates by brood year.

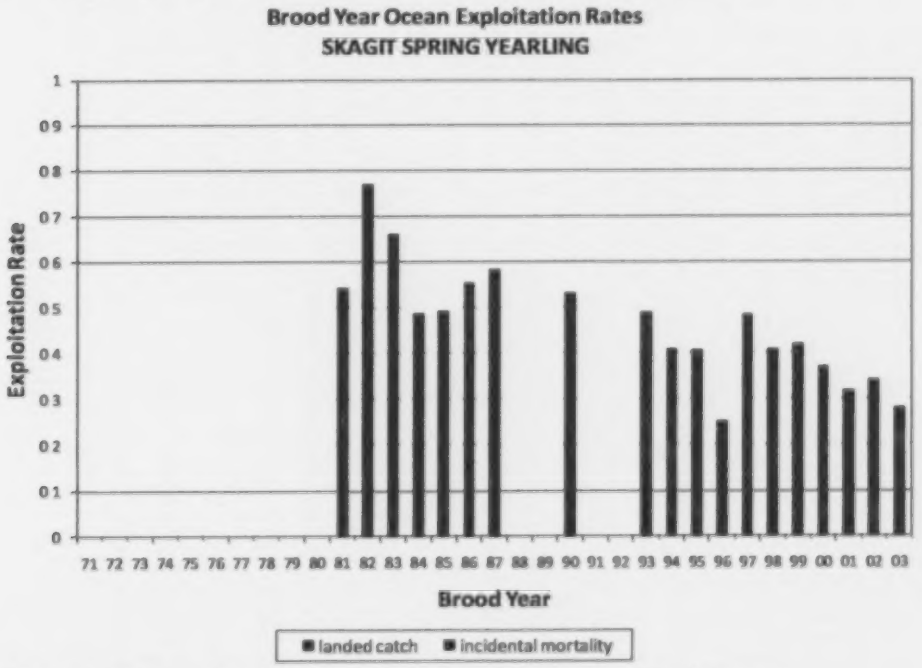

Figure E 28. Skagit Spring Yearling ocean exploitation rates by brood year.

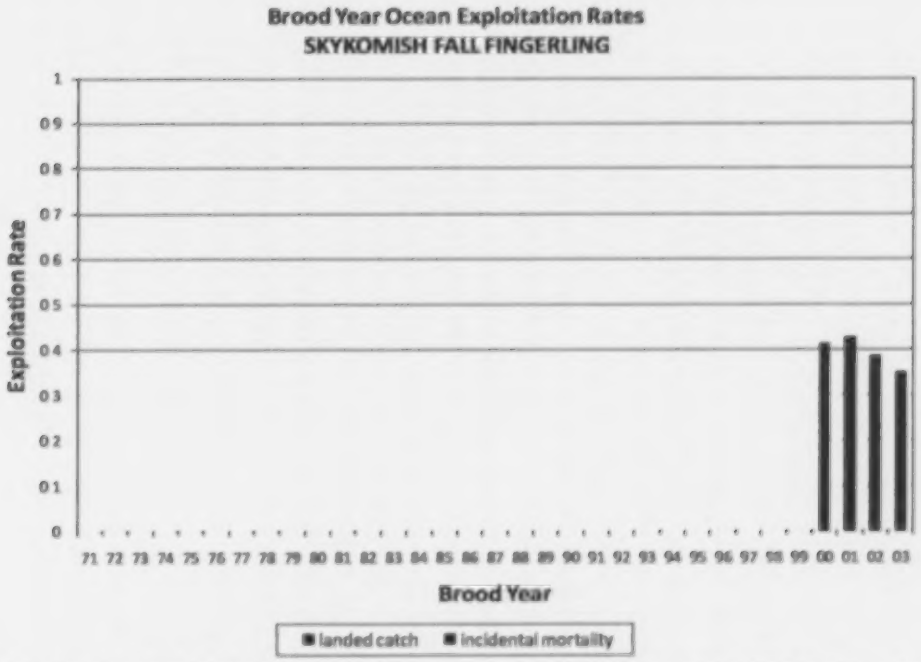

Figure E 29. Skykomish Fall Fingerling (Snohomish Wild) ocean exploitation rates by brood year.

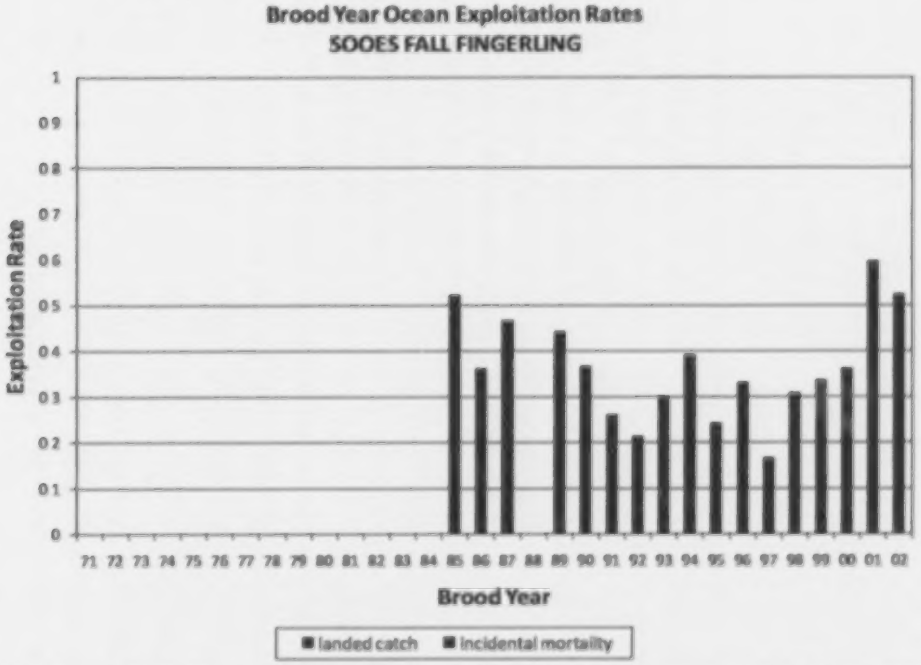

Figure E 30. Sooes Fall Fingerling (Washington Coastal Wild) ocean exploitation rates by brood year.

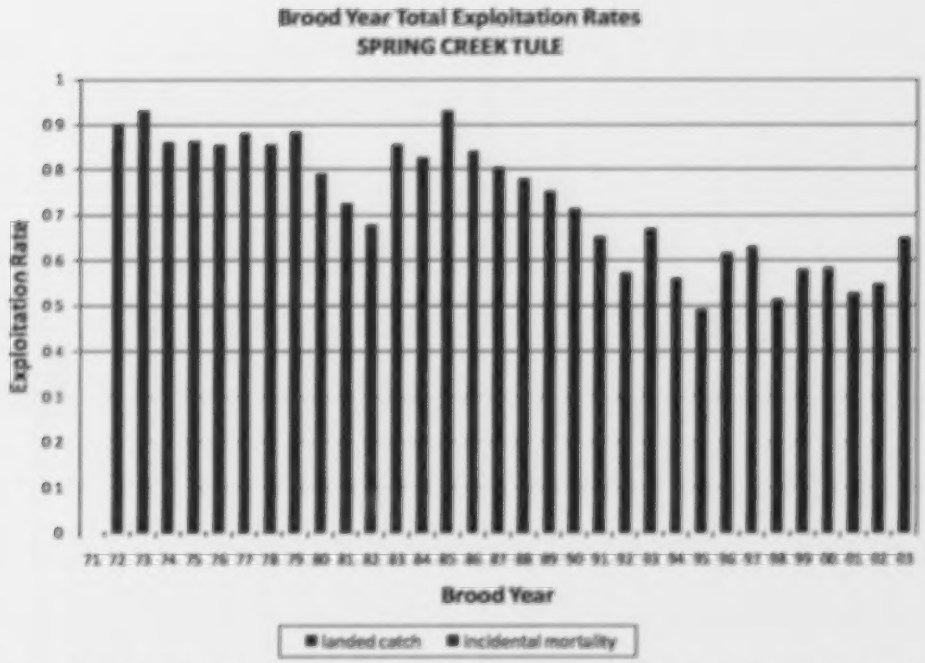

Figure E 31. Spring Creek Tule (Spring Creek Hatchery) total exploitation rates by brood year.

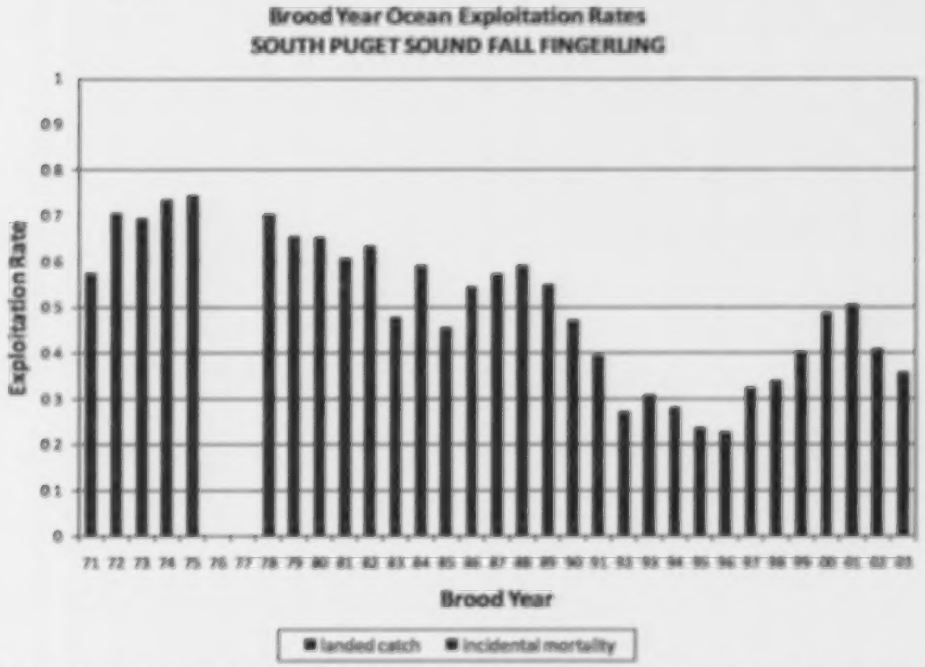

Figure E 32. South Puget Sound Fall Fingerling (Puget Sound Hatchery Fingerling) ocean exploitation rates by brood year.

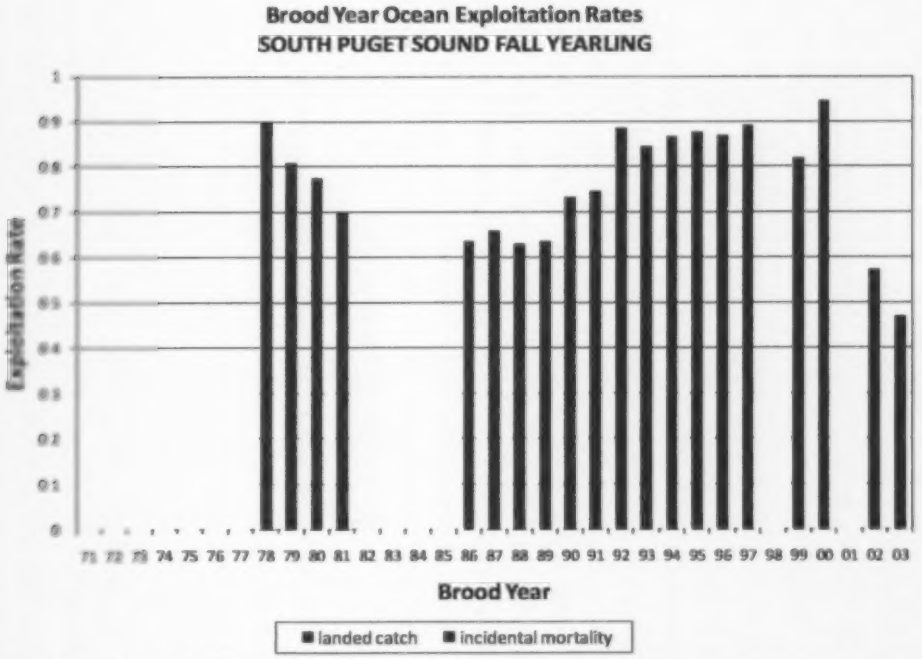

Figure E 33. South Puget Sound Fall Yearling (Puget Sound Hatchery Yearling) ocean exploitation rates by brood year.

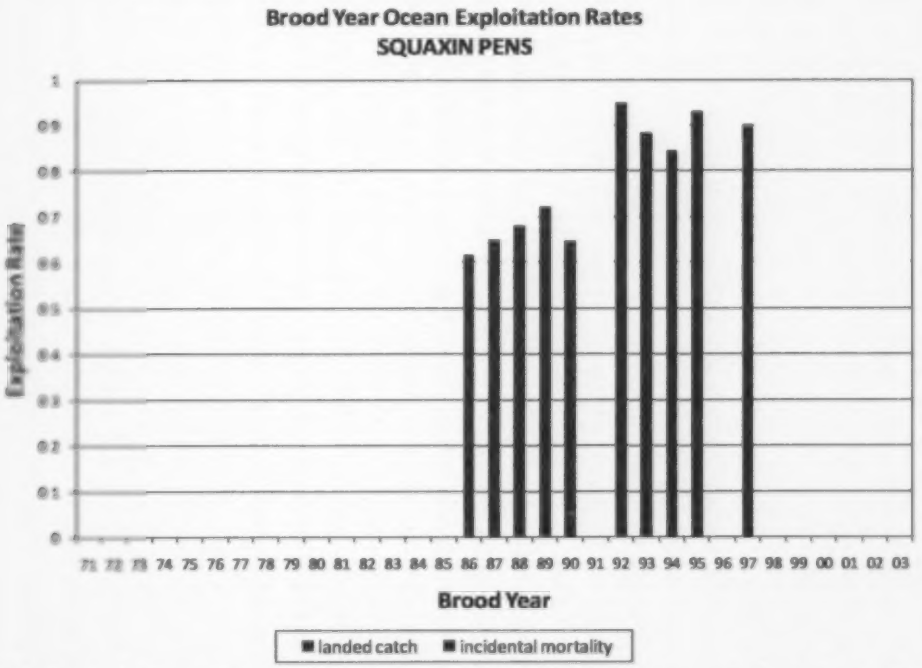

Figure E 34. Squaxin Pens (Puget Sound Hatchery Yearling) ocean exploitation rates by brood year.

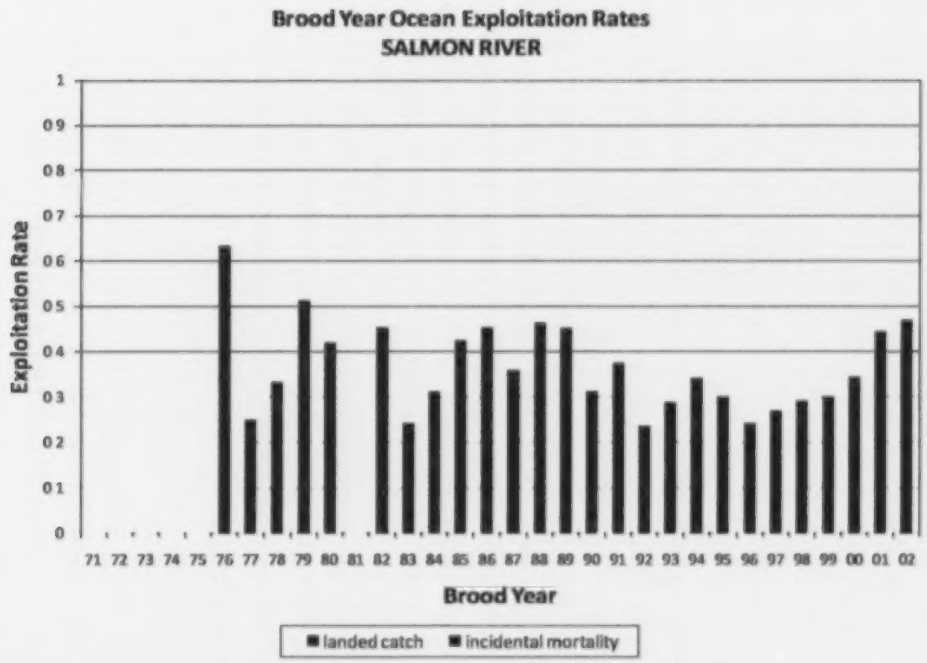

Figure E 35. Salmon River (Oregon Coast) ocean exploitation rates by brood year.

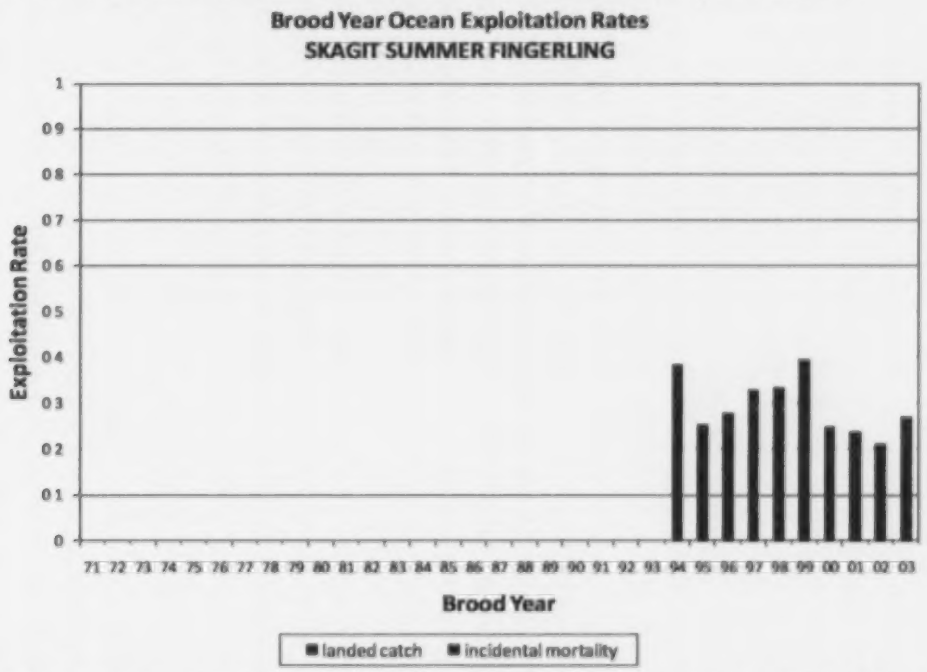

Figure E 36. Skagit Summer Fingerling (Skagit Wild) ocean exploitation rates by brood year.

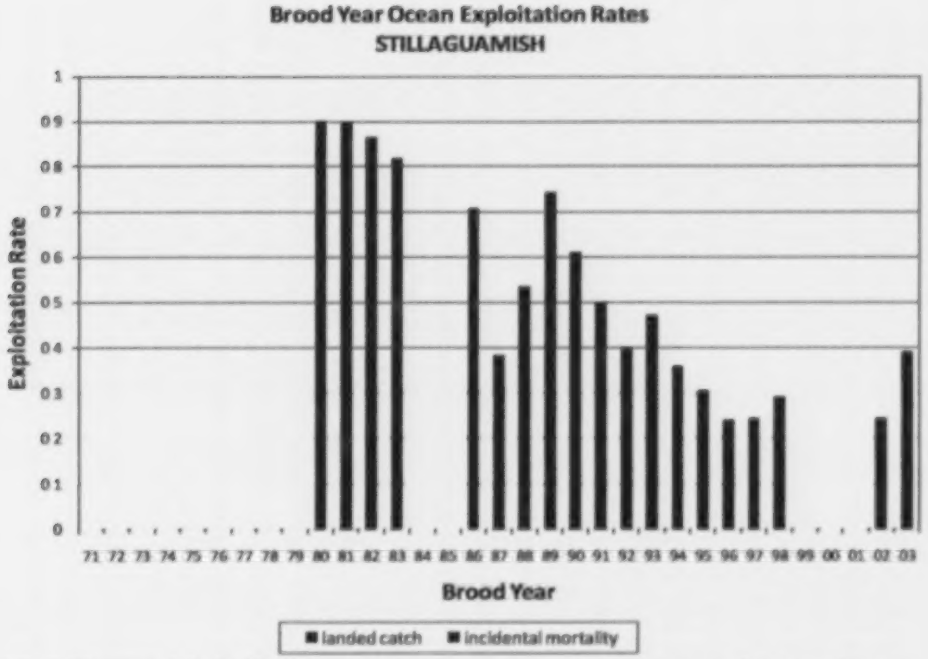

Figure E 37. Stillaguamish (Stillaguamish Wild) ocean exploitation rates by brood year.

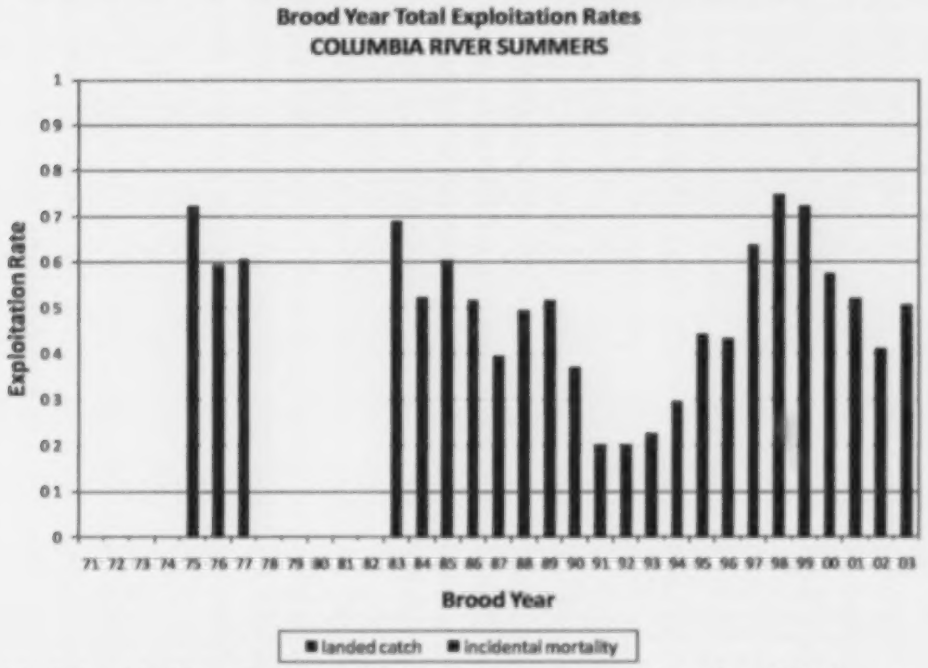

Figure E 38. Columbia River Summers (Columbia River Summer) total exploitation rates by brood year.

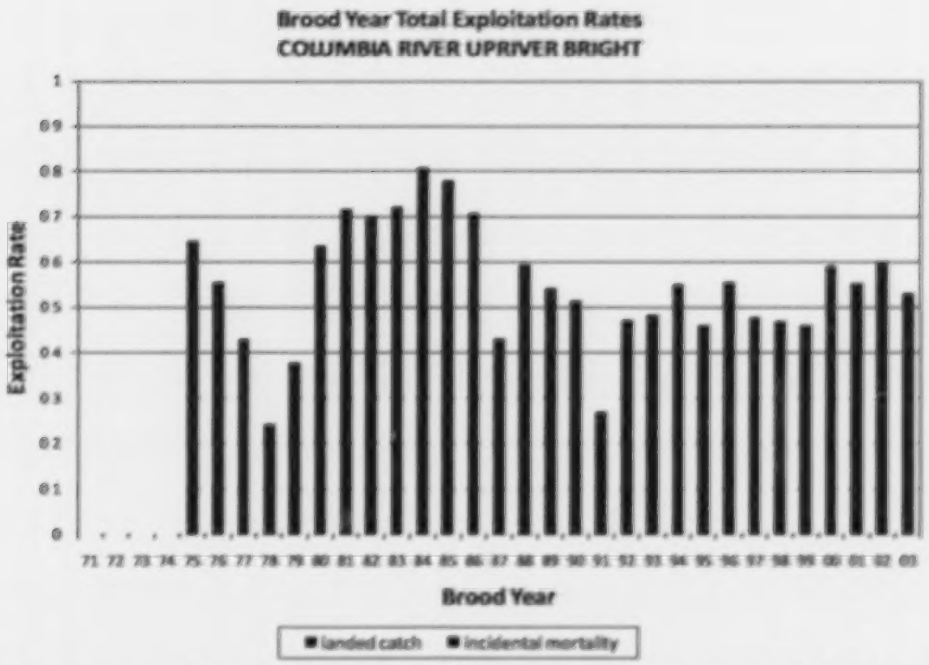

Figure E 39. Columbia River Upriver Bright (Columbia River Upriver Brights) total exploitation rates by brood year.

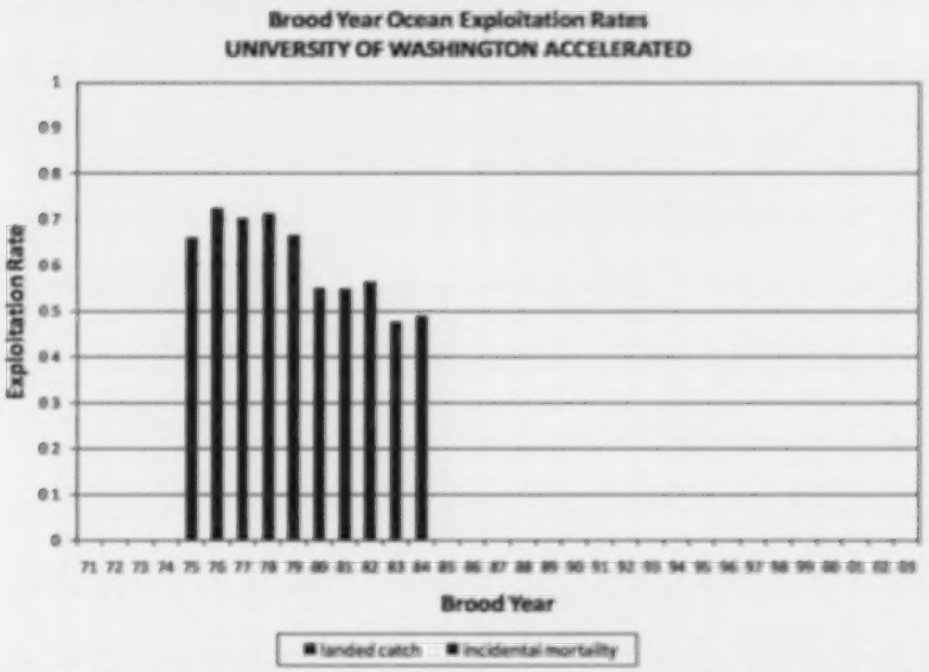

Figure E 40. University Of Washington Accelerated ocean exploitation rates by brood year.

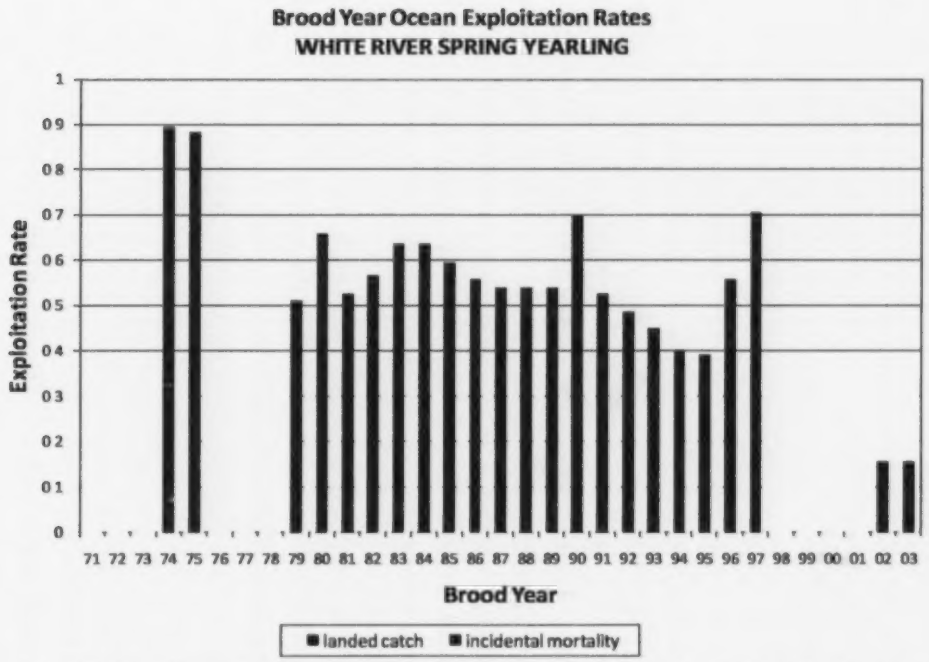

Figure E 41. White River Spring Yearling (Puget Sound Hatchery Yearling) ocean exploitation rates by brood year.

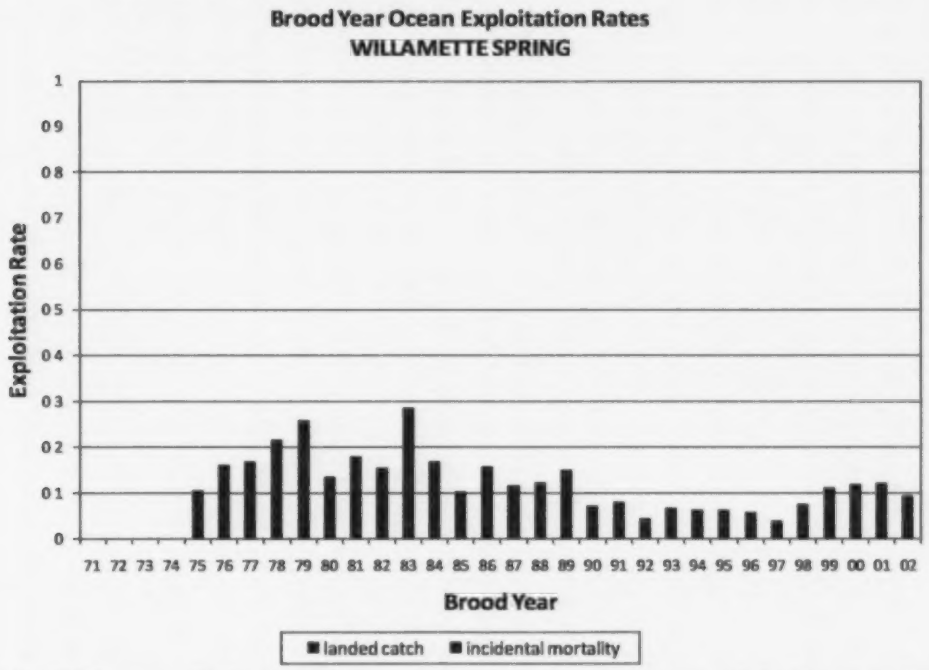

Figure E 42. Willamette Spring (Willamette River Hatchery) ocean exploitation rates by brood year.

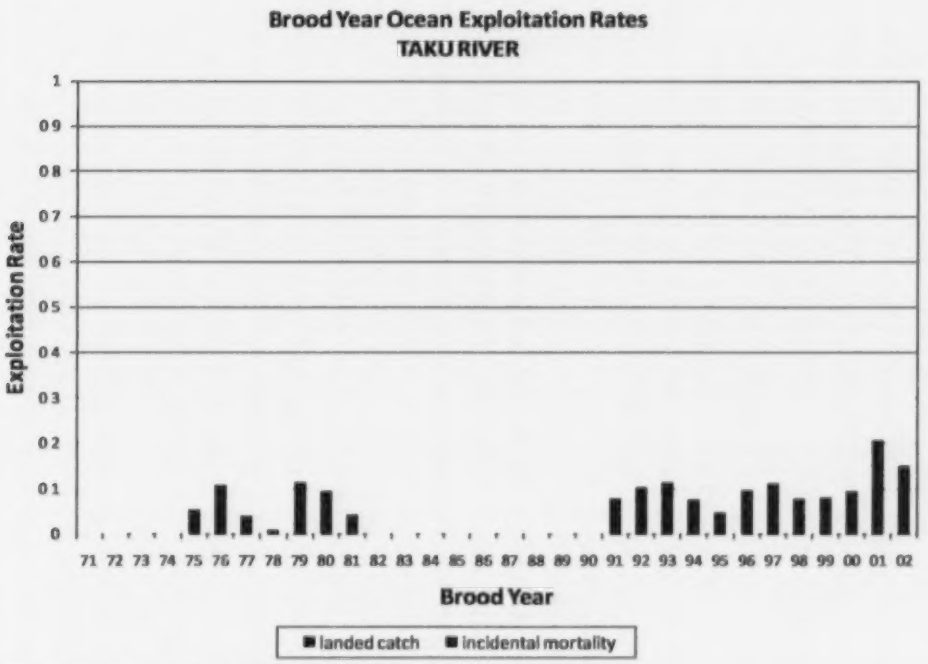

Figure E 43. Taku River ocean exploitation rates by brood year.

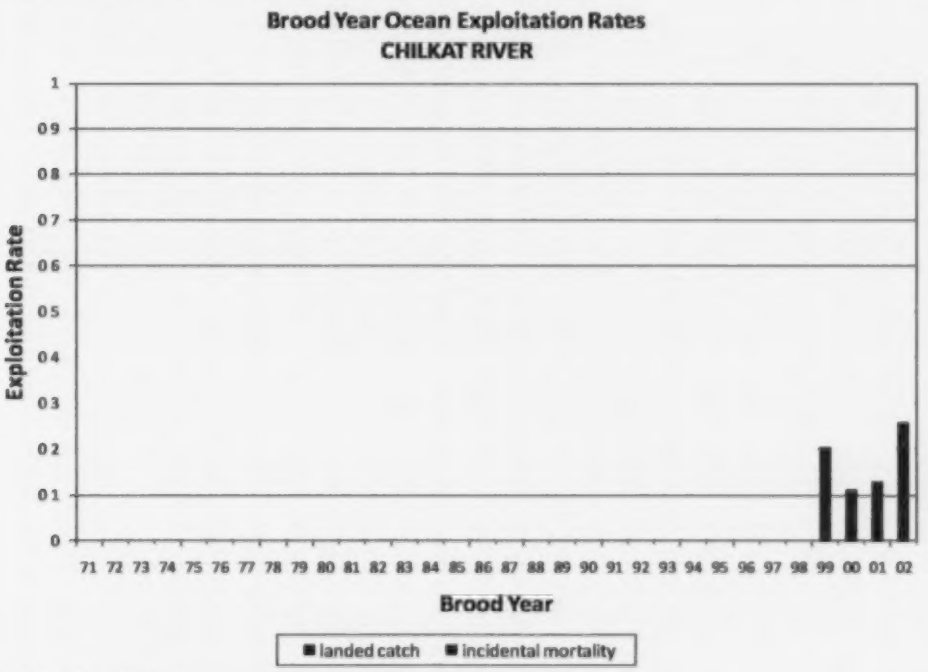

Figure E 44. Chilkat River ocean exploitation rates by brood year.

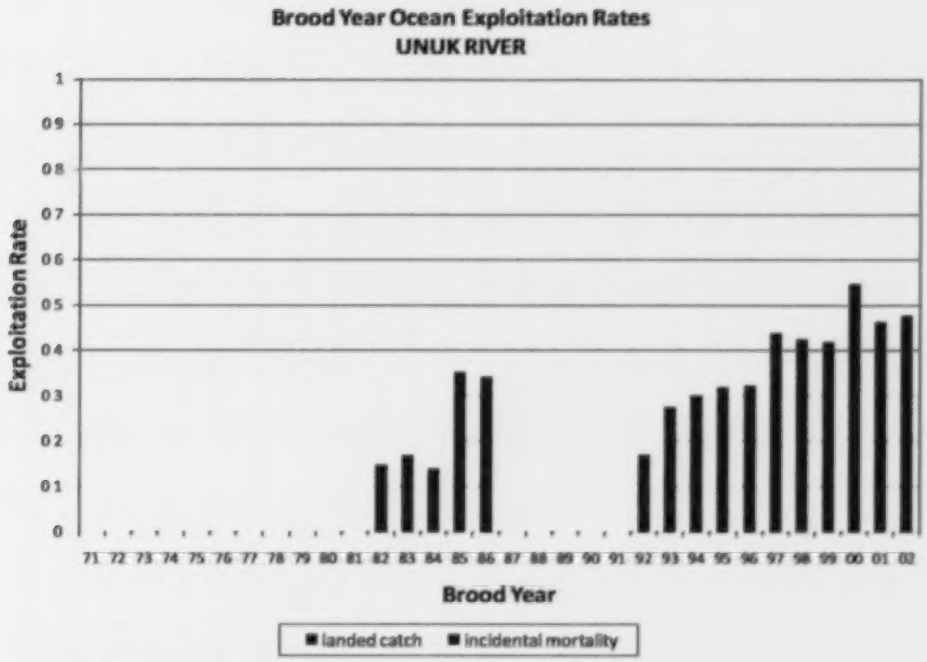

Figure E 45. Unuk River ocean exploitation rates by brood year.

Appendix F. Model estimates of the stock composition of the AABM fisheries for 2009 and the average from 1985 to 2008.

FISHERY: SE ALASKA ALL GEAR

	2009	Average (1985-2008)			
Model Stock	Percent of Fishery Catch	Percent of Fishery Catch	Percent of Stock Catch	Percent of Stock Total Return	Associated Escapement Indicator Stocks
North/Central BC	17.70%	16.89%	22.53%	10.76%	Yakoun
					Nass
					Skeena
					Area 6 Index
					Area 8 Index
					Rivers Inlet
					Smith Inlet
WCVI Hatchery	10.96%	15.91%	48.39%	17.24%	NA
Columbia Upriver Bright	22.08%	15.22%	27.79%	13.73%	Columbia Upriver Bright
Oregon Coastal North Migrating	6.76%	15.00%	35.64%	16.23%	Oregon Coastal
Fraser Early	6.69%	5.62%	29.35%	7.35%	Upper Fraser
					Middle Fraser
					Thompson
Mid-Columbia Brights	8.11%	5.26%	33.32%	13.47%	Not Represented
Upper Georgia Strait	5.85%	4.42%	34.75%	20.56%	Upper Georgia Strait
Alaska South SE	4.50%	4.07%	96.62%	37.49%	King Salmon
					Andrew Creek
					Blossom
					Keta
					Unuk
					Chickamin
Washington Coastal Wild	3.06%	3.45%	20.78%	11.00%	Grays Harbor Fall
					Quillayute Fall
					Hoh Fall
					Queets Fall
WCVI Wild	1.36%	3.32%	49.24%	17.34%	WCVI
WA Coastal Hatchery	2.61%	2.70%	18.20%	10.29%	NA
Columbia Upriver Summer	5.98%	2.70%	34.10%	15.09%	Columbia Upriver Summer
Willamette River Hatchery	1.63%	2.07%	11.56%	5.15%	NA
Fall Cowlitz Hatchery	0.75%	1.06%	5.98%	2.31%	NA
Lewis River Wild	0.44%	0.82%	17.69%	7.86%	Lewis River
Lower GS Hatchery	0.53%	0.40%	3.56%	1.91%	NA
Lower Georgia Strait	0.14%	0.23%	3.99%	2.13%	Lower Georgia Strait
Fraser Late	0.18%	0.19%	0.42%	0.15%	Harrison
PS Hatchery Fingerling	0.17%	0.18%	0.48%	0.27%	NA
Skagit Summer/Fall	0.05%	0.09%	4.06%	1.14%	Skagit Summer/Fall
Snake River Fall	0.17%	0.09%	8.82%	5.42%	Not Represented
Spring Cowlitz Hatchery	0.05%	0.08%	1.66%	0.86%	NA
Stillaguamish Summer/Fall	0.07%	0.06%	17.55%	6.24%	Stillaguamish
PS Yearling	0.07%	0.04%	0.52%	0.35%	NA
Puget Sound Natural	0.02%	0.04%	0.55%	0.26%	Green
Nooksack Fall	0.02%	0.04%	0.16%	0.11%	NA
Snohomish Summer/Fall	0.05%	0.04%	3.84%	1.04%	Snohomish
Spring Creek Hatchery	0.00%	0.00%	0.00%	0.00%	NA
Lower Bonneville Hatchery	0.00%	0.00%	0.00%	0.00%	NA
Nooksack Spring	0.00%	0.00%	0.00%	0.00%	Not Represented

FISHERY: NORTH TROLL AND SPORT

	2009	Average (1985-2008)			
Model Stock	Percent of Fishery Catch	Percent of Fishery Catch	Percent of Stock Catch	Percent of Stock Total Return	Associated Escapement Indicator Stocks
North/Central BC	64.15%	52.87%	68.44%	35.97%	Yakoun
					Nass
					Skeena
					Area 6 Index
					Area 8 Index
					Rivers Inlet
					Smith Inlet
Oregon Coastal North Migrating	4.62%	11.95%	27.46%	13.62%	Oregon Coastal
Columbia Upriver Bright	5.18%	5.89%	11.12%	5.76%	Columbia Upriver Bright
WCVI Hatchery	1.90%	5.29%	14.98%	5.88%	NA
Upper Georgia Strait	5.46%	4.08%	35.09%	21.08%	Upper Georgia Strait
Fraser Early	1.95%	2.84%	16.01%	4.59%	Upper Fraser
					Middle Fraser
					Thompson
Willamette River Hatchery	2.95%	2.78%	14.61%	7.24%	NA
Washington Coastal Wild	1.66%	2.62%	15.08%	8.70%	Grays Harbor Fall
					Quillayute Fall
					Hoh Fall
					Queets Fall
WA Coastal Hatchery	1.42%	2.02%	13.71%	8.15%	NA
Mid-Columbia Brights	1.78%	1.79%	12.96%	5.57%	Not Represented
Columbia Upriver Summer	4.12%	1.72%	24.00%	11.22%	Columbia Upriver Summer
WCVI Wild	0.25%	1.17%	15.12%	5.88%	WCVI
Lower GS Hatchery	0.61%	0.94%	9.26%	4.96%	NA
Fall Cowlitz Hatchery	0.73%	0.78%	4.42%	1.84%	NA
Fraser Late	1.19%	0.75%	1.54%	0.62%	Harrison
Lower Georgia Strait	0.20%	0.46%	9.08%	4.99%	Lower Georgia Strait
Nooksack Fall	0.34%	0.37%	1.87%	1.36%	NA
Skagit Summer/Fall	0.29%	0.33%	16.32%	4.63%	Skagit Summer/Fall
PS Hatchery Fingerling	0.24%	0.29%	0.87%	0.48%	NA
Lewis River Wild	0.12%	0.28%	5.50%	2.81%	Lewis River
Spring Cowlitz Hatchery	0.22%	0.22%	4.47%	2.46%	NA
Snohomish Summer/Fall	0.20%	0.17%	16.49%	4.66%	Snohomish
PS Yearling	0.20%	0.15%	2.14%	1.40%	NA
Alaska South SE	0.08%	0.08%	2.33%	0.90%	King Salmon
					Andrew Creek
					Blossom
					Keta
					Unuk
					Chickamin
Puget Sound Natural	0.03%	0.06%	0.91%	0.44%	Green
Snake River Fall	0.07%	0.05%	6.15%	4.02%	Not Represented
Stillaguamish Summer/Fall	0.03%	0.03%	10.97%	4.00%	Stillaguamish
Spring Creek Hatchery	0.02%	0.01%	0.06%	0.04%	NA
Nooksack Spring	0.00%	0.00%	1.64%	0.52%	Not Represented
Lower Bonneville Hatchery	0.00%	0.00%	0.00%	0.00%	NA

FISHERY: WCVI TROLL AND OUTSIDE SPORT

	2009	Average (1985-2008)			
Model Stock	Percent of Fishery Catch	Percent of Fishery Catch	Percent of Stock Catch	Percent of Stock Total Return	Associated Escapement Indicator Stocks
Fraser Late	13.60%	22.35%	22.71%	11.04%	Harrison
PS Hatchery Fingerling	11.93%	10.80%	15.27%	9.45%	NA
Columbia Upriver Bright	14.04%	8.91%	9.53%	5.19%	Columbia Upriver Bright
Fall Cowlitz Hatchery	8.47%	7.08%	23.68%	11.06%	NA
Spring Creek Hatchery	10.26%	7.00%	14.60%	11.46%	NA
Lower Bonneville Hatchery	2.40%	5.91%	31.81%	15.15%	NA
Oregon Coastal North Migrating	3.61%	5.01%	7.45%	3.69%	Oregon Coastal
WCVI Hatchery	0.00%	4.50%	7.11%	3.23%	NA
Nooksack Fall	2.56%	4.40%	10.59%	8.16%	NA
Mid-Columbia Brights	5.00%	3.54%	12.67%	5.78%	Not Represented
Columbia Upriver Summer	7.08%	2.86%	21.42%	10.32%	Columbia Upriver Summer
Puget Sound Natural	1.60%	2.52%	16.82%	9.52%	Green
Washington Coastal Wild	3.29%	2.41%	8.51%	4.77%	Grays Harbor Fall
					Quillayute Fall
					Hoh Fall
					Queets Fall
Willamette River Hatchery	3.25%	2.04%	6.30%	3.16%	NA
WA Coastal Hatchery	2.84%	1.95%	7.88%	4.58%	NA
PS Yearling	2.31%	1.44%	9.78%	7.09%	NA
Fraser Early	1.80%	1.37%	3.91%	1.10%	Upper Fraser
					Middle Fraser
					Thompson
WCVI Wild	0.00%	1.13%	7.09%	3.23%	WCVI
Skagit Summer/Fall	0.98%	0.94%	20.92%	7.04%	Skagit Summer/Fall
Lewis River Wild	0.65%	0.81%	10.22%	5.13%	Lewis River
Spring Cowlitz Hatchery	1.22%	0.70%	7.45%	4.80%	NA
Lower GS Hatchery	0.39%	0.50%	2.38%	1.35%	NA
North/Central BC	0.80%	0.48%	0.39%	0.19%	Yakoun
					Nass
					Skeena
					Area 6 Index
					Area 8 Index
					Rivers Inlet
					Smith Inlet
Snohomish Summer/Fall	0.73%	0.47%	19.32%	7.04%	Snohomish
Snake River Fall	0.79%	0.39%	22.63%	15.38%	Not Represented
Lower Georgia Strait	0.15%	0.24%	2.35%	1.38%	Lower Georgia Strait
Upper Georgia Strait	0.13%	0.11%	0.52%	0.32%	Upper Georgia Strait
Stillaguamish Summer/Fall	0.09%	0.11%	16.03%	6.69%	Stillaguamish
Nooksack Spring	0.02%	0.02%	10.09%	3.72%	Not Represented
Alaska South SE	0.00%	0.00%	0.00%	0.00%	King Salmon
					Andrew Creek
					Blossom
					Keta
					Unuk
					Chickamin

Appendix G. Incidental mortality rates applied in the CTC model. Rates in original model were applied to all years. In the current model, rates in some fisheries vary in accordance to changes in management regulations.

Fishery Number	Fishery	Rates in original Model			Rates applied in Model CLB1007			Applicable Years
		Sublegal Rate	Legal Rate	Dropoff	Sublegal Rate	Legal Rate	Dropoff	
1	Alaska T	0.3	0.3	0	0.255	0.211	0.008	All
2	North T	0.3	0.3	0	0.255	0.211	0.017	1979-1995
2	North T				0.220	0.185	0.017	1996-2006
3	Centr T	0.3	0.3	0	0.255	0.211	0.017	1979-1995
3	Centr T				0.220	0.185	0.017	1996-2006
4	WCVI T	0.3	0.3	0	0.255	0.211	0.017	1979-1997
4	WCVI T				0.220	0.185	0.017	1998-2006
5	WA/OR T	0.3	0.3	0	0.255	0.211	0.017	1979-1983
5	WA/OR T				0.220	0.185	0.017	1984-2006
6	Geo St T	0.3	0.3	0	0.255	0.211	0.017	1979-1985,1987
6	Geo St T				0.220	0.185	0.017	1986,1988-2006
7	Alaska N	0.9	0.9	0	0.9	0.9	0	All
8	North N	0.9	0.9	0	0.9	0.9	0	All
9	Centr N	0.9	0.9	0	0.9	0.9	0	All
10	WCVI N	0.9	0.9	0	0.9	0.9	0	All
11	J De F N	0.9	0.9	0	0.9	0.9	0	All
12	PgtNth N	0.9	0.9	0	0.9	0.9	0	All
13	PgtSth N	0.9	0.9	0	0.9	0.9	0	All
14	WashCst N	0.9	0.9	0	0.9	0.9	0	All
15	Col R N	0.9	0.9	0	0.9	0.9	0	All
16	JohnSt N	0.9	0.9	0	0.9	0.9	0	All
17	Fraser N	0.9	0.9	0	0.9	0.9	0	All
18	Alaska S	0.3	0.3	0	0.123	0.123	0.036	All
19	Nor/Cen S	0.3	0.3	0	0.123	0.123	0.036	All
20	WCVI S	0.3	0.3	0	0.123	0.123	0.069	All
21	WashOcn S	0.3	0.3	0	0.123	0.123	0.069	All
22	PgtNth S	0.3	0.3	0	0.123	0.123	0.145	All
23	PgtSth S	0.3	0.3	0	0.123	0.123	0.145	All
24	Geo St S	0.3	0.3	0	0.322	0.322	0.069	1979-1981
24	Geo St S				0.123	0.123	0.069	1982-2006
25	Col R S	0.3	0.3	0	0.123	0.123	0.069	All

Appendix H. Time series of abundance indices from 1979 to 2010 for SEAK, NBC, and WCVI AABM fisheries as estimated by CTC Chinook Model calibration CLB1007.

This time series is NOT the first postseason AI and is for trend analysis only(Figures 3.10-3.12). For evaluation of overage and underage, use the first postseason AI in Table 3-3 instead. (Source 1007PABD).

Year	SEAK	NBC	WCVI
1979	0.97	1.03	1.10
1980	1.02	0.98	0.96
1981	0.92	0.94	0.93
1982	1.09	1.05	1.01
1983	1.29	1.23	0.94
1984	1.47	1.40	1.00
1985	1.34	1.32	0.97
1986	1.52	1.48	1.03
1987	1.76	1.74	1.19
1988	2.14	1.86	1.13
1989	1.87	1.68	0.99
1990	1.89	1.64	0.89
1991	1.80	1.52	0.76
1992	1.67	1.41	0.78
1993	1.67	1.42	0.70
1994	1.58	1.25	0.53
1995	1.06	0.98	0.41
1996	0.94	0.93	0.49
1997	1.24	1.12	0.59
1998	1.19	1.01	0.56
1999	1.09	0.95	0.50
2000	0.97	0.94	0.52
2001	1.16	1.20	0.80
2002	1.74	1.69	1.16
2003	2.19	1.91	1.23
2004	2.05	1.79	1.02
2005	1.81	1.54	0.83
2006	1.52	1.24	0.64
2007	1.15	0.93	0.52
2008	0.92	0.85	0.56
2009	1.20	1.07	0.61
2010	1.35	1.17	0.96

Appendix I. Abundance indices in total and by model stock for AABM fisheries, from Calibration 1007.

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Table I.1. Abundance indices (AIs) for the Southeast Alaska troll fishery by model stock and year (stock groups 1-15), from CLB 1007. Numbers represent the model stock contribution to the total AI: the summation across all 30 stocks and stock groups equals the AI total for each calendar year.

Year	Alaska South SE	North / Centr	Fraser Early	Fraser Late	WCVI Hatchery	WCVI Natural	Georgia St Upper	Georgia St Lwr Nat	Georgia St Lwr Hat	Nooksack Fall	Pgt Sd Fmg	Pgt Sd NatF	Pgt Sd Your	Nooksack Spring	Skagit Wild	AI Total
1979	0.03	0.12	0.06	0.00	0.05	0.07	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97
1980	0.03	0.13	0.05	0.00	0.10	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.02
1981	0.04	0.14	0.04	0.00	0.08	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92
1982	0.05	0.14	0.04	0.00	0.19	0.21	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09
1983	0.05	0.16	0.04	0.00	0.30	0.14	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.29
1984	0.06	0.19	0.05	0.00	0.28	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47
1985	0.06	0.21	0.07	0.00	0.15	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.34
1986	0.07	0.22	0.07	0.00	0.12	0.04	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52
1987	0.07	0.24	0.07	0.00	0.09	0.03	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.76
1988	0.06	0.25	0.07	0.00	0.21	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.14
1989	0.04	0.26	0.07	0.00	0.32	0.07	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.87
1990	0.03	0.26	0.07	0.00	0.47	0.10	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.89
1991	0.03	0.27	0.06	0.00	0.59	0.13	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80
1992	0.03	0.27	0.06	0.00	0.55	0.13	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.67
1993	0.04	0.24	0.06	0.00	0.52	0.14	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.67
1994	0.03	0.22	0.07	0.00	0.42	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.58
1995	0.03	0.23	0.07	0.00	0.15	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.06
1996	0.03	0.23	0.08	0.00	0.05	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94
1997	0.03	0.24	0.09	0.00	0.18	0.05	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.24
1998	0.04	0.23	0.08	0.00	0.27	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.19
1999	0.04	0.24	0.07	0.00	0.14	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09
2000	0.05	0.25	0.07	0.00	0.05	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97
2001	0.05	0.25	0.08	0.00	0.07	0.01	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.16
2002	0.04	0.25	0.10	0.00	0.23	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.74
2003	0.04	0.25	0.10	0.00	0.36	0.04	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.19
2004	0.04	0.25	0.09	0.00	0.37	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.05
2005	0.05	0.24	0.09	0.00	0.26	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.81
2006	0.05	0.23	0.10	0.00	0.23	0.03	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52
2007	0.05	0.21	0.08	0.00	0.23	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.15
2008	0.03	0.19	0.08	0.00	0.12	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92
2009	0.04	0.20	0.08	0.00	0.14	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20
2010	0.06	0.23	0.08	0.00	0.11	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.35
Average	0.04	0.22	0.07	0.00	0.23	0.07	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45

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Table I.1. Page 2 of 2 (stock groups 16-30).

Year	Stillaguamish Wild	Snohomish Wild	WA Coastal Hat	UpRiver Brights	Spring Creek Hat	Lwr Bonneville Hat	Fall Cowlitz Hat	Lewis R Wild	Willamette R Hat	Spr Cowlitz Hat	Col R Summer	Oregon Coast	WA Coastal Wild	Lyons Ferry	Mid Col R Brights	AI Total
1979	0.00	0.00	0.03	0.18	0.00	0.00	0.03	0.02	0.02	0.00	0.04	0.23	0.03	0.00	0.00	0.97
1980	0.00	0.00	0.03	0.14	0.00	0.00	0.03	0.02	0.03	0.00	0.04	0.17	0.04	0.00	0.00	1.02
1981	0.00	0.00	0.02	0.10	0.00	0.00	0.03	0.02	0.03	0.01	0.03	0.16	0.04	0.00	0.01	0.92
1982	0.00	0.00	0.02	0.06	0.00	0.00	0.03	0.01	0.03	0.00	0.02	0.17	0.04	0.00	0.01	1.09
1983	0.00	0.00	0.02	0.09	0.00	0.00	0.03	0.01	0.04	0.00	0.03	0.26	0.03	0.00	0.02	1.29
1984	0.00	0.00	0.02	0.20	0.00	0.00	0.03	0.01	0.04	0.00	0.03	0.36	0.04	0.00	0.02	1.47
1985	0.00	0.00	0.02	0.24	0.00	0.00	0.03	0.01	0.03	0.00	0.02	0.34	0.04	0.00	0.01	1.34
1986	0.00	0.00	0.02	0.34	0.00	0.00	0.03	0.01	0.04	0.00	0.03	0.36	0.05	0.00	0.02	1.52
1987	0.00	0.00	0.04	0.48	0.00	0.00	0.03	0.02	0.05	0.01	0.03	0.40	0.06	0.00	0.07	1.76
1988	0.00	0.00	0.05	0.51	0.00	0.00	0.14	0.04	0.06	0.00	0.03	0.38	0.07	0.00	0.14	2.14
1989	0.00	0.00	0.06	0.33	0.00	0.00	0.05	0.04	0.05	0.00	0.03	0.30	0.08	0.00	0.12	1.87
1990	0.00	0.00	0.05	0.25	0.00	0.00	0.02	0.02	0.07	0.00	0.03	0.32	0.07	0.00	0.08	1.89
1991	0.00	0.00	0.05	0.13	0.00	0.00	0.01	0.01	0.05	0.00	0.02	0.29	0.06	0.00	0.05	1.80
1992	0.00	0.00	0.05	0.10	0.00	0.00	0.02	0.01	0.03	0.00	0.02	0.25	0.05	0.00	0.04	1.67
1993	0.00	0.00	0.05	0.18	0.00	0.00	0.01	0.01	0.03	0.00	0.02	0.24	0.05	0.00	0.05	1.67
1994	0.00	0.00	0.05	0.21	0.00	0.00	0.01	0.01	0.02	0.00	0.02	0.29	0.05	0.00	0.05	1.58
1995	0.00	0.00	0.04	0.12	0.00	0.00	0.01	0.01	0.02	0.00	0.02	0.21	0.05	0.00	0.04	1.06
1996	0.00	0.00	0.04	0.13	0.00	0.00	0.02	0.01	0.01	0.00	0.02	0.17	0.05	0.00	0.05	0.94
1997	0.00	0.00	0.03	0.18	0.00	0.00	0.01	0.01	0.02	0.00	0.02	0.20	0.05	0.00	0.09	1.24
1998	0.00	0.00	0.02	0.12	0.00	0.00	0.00	0.01	0.02	0.00	0.02	0.16	0.04	0.00	0.06	1.19
1999	0.00	0.00	0.02	0.21	0.00	0.00	0.01	0.00	0.02	0.00	0.02	0.16	0.03	0.00	0.06	1.09
2000	0.00	0.00	0.02	0.18	0.00	0.00	0.01	0.01	0.03	0.00	0.04	0.13	0.03	0.00	0.05	0.97
2001	0.00	0.00	0.02	0.20	0.00	0.00	0.01	0.01	0.03	0.00	0.07	0.19	0.03	0.00	0.07	1.16
2002	0.00	0.00	0.03	0.31	0.00	0.00	0.02	0.02	0.07	0.00	0.10	0.27	0.03	0.00	0.16	1.74
2003	0.00	0.00	0.03	0.45	0.00	0.00	0.05	0.02	0.05	0.00	0.10	0.36	0.04	0.00	0.22	2.19
2004	0.00	0.00	0.04	0.37	0.00	0.00	0.03	0.02	0.06	0.00	0.09	0.38	0.05	0.00	0.16	2.05
2005	0.00	0.00	0.04	0.37	0.00	0.00	0.03	0.01	0.02	0.00	0.09	0.32	0.05	0.00	0.13	1.81
2006	0.00	0.00	0.04	0.26	0.00	0.00	0.02	0.02	0.03	0.00	0.09	0.20	0.04	0.00	0.11	1.52
2007	0.00	0.00	0.03	0.11	0.00	0.00	0.01	0.00	0.01	0.00	0.07	0.13	0.03	0.00	0.08	1.15
2008	0.00	0.00	0.03	0.14	0.00	0.00	0.01	0.00	0.02	0.00	0.06	0.07	0.03	0.00	0.08	0.92
2009	0.00	0.00	0.03	0.29	0.00	0.00	0.02	0.01	0.02	0.00	0.08	0.09	0.03	0.00	0.10	1.20
2010	0.00	0.00	0.03	0.29	0.00	0.00	0.02	0.01	0.04	0.00	0.11	0.13	0.04	0.00	0.11	1.35
Average	0.00	0.00	0.03	0.40	0.00	0.00	0.03	0.01	0.02	0.00	0.13	0.09	0.03	0.00	0.14	1.45

Table I.2. Abundance indices (AIs) for the Northern BC troll fishery by stock and year (stock groups 1-15), from CLB 1007. Numbers represent the model stock contribution to the total AI: the summation across all 30 stocks and stock groups equals the AI total for each calendar year.

Year	Alaska SE	South North/Cen tr	Fraser Early	Fraser Late	WCVI Hatchery	WCVI Natural	Georgia St Upper	Georgia St Lwr Nat	Georgia St Lwr Hat	Nooksack Fall	Pgt Sd Fmg	Pgt Sd NatF	Pgt Sd Year	Nooksack Spring	Skagit Wild	AI Total
1979	0.00	0.08	0.07	0.01	0.04	0.05	0.06	0.02	0.02	0.01	0.00	0.00	0.00	0.02	0.01	1.03
1980	0.00	0.09	0.06	0.01	0.05	0.08	0.05	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.98
1981	0.00	0.09	0.05	0.01	0.06	0.08	0.06	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.94
1982	0.00	0.10	0.05	0.01	0.12	0.11	0.05	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.01	1.05
1983	0.00	0.11	0.05	0.01	0.16	0.08	0.04	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	1.23
1984	0.00	0.12	0.06	0.02	0.14	0.05	0.05	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.01	1.40
1985	0.00	0.13	0.08	0.01	0.09	0.03	0.06	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.01	1.32
1986	0.00	0.15	0.09	0.01	0.06	0.02	0.06	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.01	1.48
1987	0.00	0.15	0.09	0.01	0.07	0.02	0.07	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.74
1988	0.00	0.16	0.08	0.01	0.13	0.03	0.06	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	1.86
1989	0.00	0.17	0.08	0.01	0.19	0.04	0.06	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.68
1990	0.00	0.18	0.08	0.01	0.27	0.06	0.05	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.64
1991	0.00	0.18	0.08	0.01	0.32	0.07	0.05	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.52
1992	0.00	0.17	0.07	0.01	0.31	0.08	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.41
1993	0.00	0.16	0.07	0.01	0.28	0.07	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.42
1994	0.00	0.16	0.08	0.00	0.20	0.05	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.25
1995	0.00	0.15	0.09	0.00	0.07	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.98
1996	0.00	0.15	0.09	0.01	0.05	0.01	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.93
1997	0.00	0.16	0.11	0.01	0.12	0.03	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.12
1998	0.00	0.16	0.10	0.01	0.13	0.03	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.01
1999	0.00	0.16	0.09	0.01	0.07	0.01	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.95
2000	0.00	0.16	0.08	0.01	0.03	0.00	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.94
2001	0.00	0.17	0.09	0.01	0.06	0.01	0.06	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.20
2002	0.00	0.17	0.11	0.01	0.15	0.02	0.07	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.69
2003	0.00	0.17	0.12	0.01	0.19	0.02	0.07	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	1.91
2004	0.00	0.18	0.11	0.01	0.20	0.02	0.08	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.01	1.79
2005	0.00	0.17	0.10	0.01	0.14	0.01	0.08	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	1.54
2006	0.00	0.16	0.11	0.01	0.14	0.02	0.08	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.01	1.24
2007	0.00	0.15	0.10	0.00	0.11	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.93
2008	0.00	0.13	0.09	0.00	0.07	0.01	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.85
2009	0.00	0.14	0.09	0.00	0.07	0.01	0.06	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.07
2010	0.00	0.15	0.10	0.01	0.06	0.01	0.07	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.17
Average	0.00	0.15	0.08	0.01	0.13	0.04	0.05	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	1.29

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Table I.2. Page 2 of 2 (stock groups 16-30).

Year	Stillaguamish Wild	Snohomish Wild	WA Coastal Hat	UpRiver Brights	Spring Creek Hat	Lwr Bonneville Hat	Fall Cowlitz Hat	Lewis R Wild	Willamette R Hat	Spr Cowlitz Hat	Col R Summer	Oregon Coast	WA Coastal Wild	Lyons Ferry	Mid Col R Brights	AI Total
1979	0.00	0.01	0.04	0.12	0.00	0.00	0.02	0.01	0.05	0.01	0.02	0.30	0.05	0.00	0.00	1.03
1980	0.00	0.01	0.04	0.09	0.00	0.00	0.02	0.01	0.06	0.01	0.02	0.24	0.06	0.00	0.00	0.98
1981	0.00	0.00	0.04	0.07	0.00	0.00	0.02	0.01	0.07	0.01	0.02	0.23	0.06	0.00	0.01	0.94
1982	0.00	0.00	0.03	0.04	0.00	0.00	0.02	0.01	0.08	0.01	0.02	0.28	0.06	0.00	0.01	1.05
1983	0.00	0.00	0.03	0.07	0.00	0.00	0.02	0.01	0.09	0.01	0.02	0.40	0.06	0.00	0.02	1.23
1984	0.00	0.00	0.03	0.14	0.00	0.00	0.02	0.01	0.08	0.01	0.02	0.51	0.06	0.00	0.01	1.40
1985	0.00	0.00	0.03	0.16	0.00	0.00	0.02	0.00	0.08	0.00	0.02	0.47	0.07	0.00	0.01	1.32
1986	0.00	0.00	0.05	0.25	0.00	0.00	0.02	0.01	0.10	0.01	0.02	0.50	0.08	0.00	0.02	1.48
1987	0.00	0.00	0.07	0.33	0.00	0.00	0.03	0.02	0.13	0.01	0.02	0.53	0.10	0.00	0.06	1.74
1988	0.00	0.00	0.09	0.33	0.00	0.00	0.08	0.02	0.14	0.01	0.02	0.47	0.12	0.00	0.09	1.86
1989	0.00	0.00	0.09	0.20	0.00	0.00	0.02	0.01	0.14	0.01	0.02	0.40	0.13	0.00	0.07	1.68
1990	0.00	0.00	0.08	0.15	0.00	0.00	0.01	0.01	0.14	0.00	0.01	0.40	0.11	0.00	0.05	1.64
1991	0.00	0.00	0.08	0.08	0.00	0.00	0.01	0.01	0.10	0.00	0.01	0.37	0.10	0.00	0.03	1.52
1992	0.00	0.00	0.09	0.07	0.00	0.00	0.01	0.01	0.07	0.01	0.01	0.33	0.09	0.00	0.03	1.41
1993	0.00	0.00	0.08	0.12	0.00	0.00	0.01	0.00	0.06	0.00	0.01	0.36	0.08	0.00	0.03	1.42
1994	0.00	0.00	0.07	0.13	0.00	0.00	0.00	0.01	0.05	0.00	0.01	0.34	0.08	0.00	0.03	1.25
1995	0.00	0.00	0.07	0.08	0.00	0.00	0.01	0.01	0.04	0.00	0.01	0.29	0.07	0.00	0.03	0.98
1996	0.00	0.00	0.06	0.09	0.00	0.00	0.01	0.01	0.04	0.00	0.01	0.24	0.07	0.00	0.04	0.93
1997	0.00	0.00	0.05	0.12	0.00	0.00	0.01	0.00	0.05	0.00	0.01	0.26	0.07	0.00	0.06	1.12
1998	0.00	0.00	0.03	0.08	0.00	0.00	0.00	0.00	0.05	0.00	0.02	0.22	0.06	0.00	0.04	1.01
1999	0.00	0.00	0.03	0.14	0.00	0.00	0.01	0.00	0.06	0.00	0.03	0.19	0.04	0.00	0.04	0.95
2000	0.00	0.00	0.03	0.11	0.00	0.00	0.00	0.00	0.07	0.00	0.04	0.23	0.04	0.00	0.03	0.94
2001	0.00	0.00	0.03	0.15	0.00	0.00	0.01	0.01	0.11	0.00	0.05	0.30	0.05	0.00	0.05	1.20
2002	0.00	0.00	0.04	0.22	0.00	0.00	0.02	0.01	0.15	0.00	0.06	0.44	0.06	0.00	0.11	1.69
2003	0.00	0.00	0.05	0.29	0.00	0.00	0.03	0.01	0.12	0.01	0.06	0.51	0.07	0.00	0.14	1.91
2004	0.00	0.00	0.06	0.24	0.00	0.00	0.01	0.01	0.10	0.01	0.06	0.49	0.07	0.00	0.10	1.79
2005	0.00	0.00	0.06	0.24	0.00	0.00	0.02	0.01	0.06	0.00	0.05	0.39	0.07	0.00	0.09	1.54
2006	0.00	0.00	0.06	0.16	0.00	0.00	0.01	0.00	0.05	0.01	0.05	0.23	0.06	0.00	0.07	1.24
2007	0.00	0.00	0.05	0.08	0.00	0.00	0.00	0.00	0.03	0.00	0.05	0.14	0.05	0.00	0.05	0.93
2008	0.00	0.00	0.04	0.11	0.00	0.00	0.01	0.00	0.04	0.00	0.05	0.10	0.05	0.00	0.06	0.85
2009	0.00	0.00	0.05	0.19	0.00	0.00	0.01	0.00	0.07	0.00	0.06	0.14	0.06	0.00	0.07	1.07
2010	0.00	0.00	0.05	0.20	0.00	0.00	0.02	0.00	0.08	0.00	0.07	0.16	0.06	0.00	0.07	1.17
Average	0.00	0.00	0.05	0.15	0.00	0.00	0.02	0.01	0.08	0.00	0.03	0.33	0.07	0.00	0.05	1 29

Table I.3. Abundance indices (AIs) for the WCVI troll fishery by stock and year (stock groups 1-15), from CLB 1007. Numbers represent the portion of the AI total estimated for each model stock; the summation across all 30 stock groups equals the AI total for each.

Year	Alaska South SE	Alaska North/Centr	Fraser Early	Fraser Late	WCVI Hatchery	WCVI Natural	Georgia St Upper	Georgia St Lwr Nat	Georgia St Lwr Hat	Nooksack Fall	Pgt Sd Fmg	Pgt Sd NatF	Pgt Sd Year	Nooksack Spring	Skagit Wild	AI Total
1979	0.00	0.00	0.01	0.27	0.01	0.02	0.00	0.01	0.01	0.08	0.05	0.03	0.03	0.00	0.02	1.10
1980	0.00	0.00	0.01	0.20	0.02	0.02	0.00	0.01	0.01	0.09	0.05	0.02	0.03	0.00	0.02	0.96
1981	0.00	0.00	0.00	0.23	0.02	0.03	0.00	0.00	0.01	0.09	0.05	0.02	0.03	0.00	0.02	0.93
1982	0.00	0.00	0.00	0.25	0.04	0.03	0.00	0.00	0.01	0.09	0.05	0.02	0.02	0.00	0.01	1.01
1983	0.00	0.00	0.01	0.22	0.05	0.02	0.00	0.00	0.00	0.10	0.06	0.03	0.02	0.00	0.01	0.94
1984	0.00	0.00	0.01	0.25	0.04	0.01	0.00	0.00	0.01	0.12	0.06	0.02	0.02	0.00	0.02	1.00
1985	0.00	0.00	0.01	0.28	0.03	0.01	0.00	0.00	0.01	0.11	0.06	0.02	0.02	0.00	0.01	0.97
1986	0.00	0.00	0.01	0.22	0.02	0.01	0.00	0.00	0.00	0.09	0.06	0.02	0.01	0.00	0.01	1.03
1987	0.00	0.00	0.01	0.11	0.02	0.01	0.00	0.00	0.00	0.06	0.08	0.02	0.01	0.00	0.01	1.19
1988	0.00	0.00	0.01	0.07	0.04	0.01	0.00	0.00	0.00	0.05	0.09	0.03	0.01	0.00	0.01	1.13
1989	0.00	0.00	0.01	0.18	0.06	0.01	0.00	0.00	0.00	0.07	0.10	0.03	0.02	0.00	0.01	0.99
1990	0.00	0.00	0.01	0.21	0.08	0.02	0.00	0.00	0.00	0.07	0.09	0.03	0.01	0.00	0.01	0.89
1991	0.00	0.00	0.01	0.16	0.09	0.02	0.00	0.00	0.00	0.05	0.07	0.02	0.01	0.00	0.00	0.76
1992	0.00	0.00	0.01	0.21	0.09	0.02	0.00	0.00	0.00	0.03	0.06	0.02	0.01	0.00	0.00	0.78
1993	0.00	0.00	0.01	0.17	0.08	0.02	0.00	0.00	0.00	0.03	0.06	0.02	0.01	0.00	0.00	0.70
1994	0.00	0.00	0.01	0.10	0.05	0.01	0.00	0.00	0.00	0.02	0.07	0.02	0.01	0.00	0.00	0.53
1995	0.00	0.00	0.01	0.05	0.01	0.00	0.00	0.00	0.00	0.02	0.08	0.02	0.01	0.00	0.00	0.41
1996	0.00	0.00	0.01	0.07	0.02	0.00	0.00	0.00	0.00	0.02	0.07	0.01	0.01	0.00	0.00	0.49
1997	0.00	0.00	0.01	0.16	0.04	0.01	0.00	0.00	0.00	0.02	0.06	0.01	0.01	0.00	0.01	0.59
1998	0.00	0.00	0.01	0.18	0.04	0.01	0.00	0.00	0.00	0.02	0.07	0.01	0.00	0.00	0.00	0.56
1999	0.00	0.00	0.01	0.11	0.01	0.00	0.00	0.00	0.00	0.02	0.08	0.02	0.01	0.00	0.01	0.50
2000	0.00	0.00	0.01	0.12	0.01	0.00	0.00	0.00	0.00	0.03	0.08	0.02	0.01	0.00	0.01	0.52
2001	0.00	0.00	0.01	0.11	0.02	0.00	0.00	0.00	0.00	0.03	0.08	0.02	0.01	0.00	0.01	0.80
2002	0.00	0.00	0.01	0.20	0.05	0.01	0.00	0.00	0.00	0.03	0.09	0.02	0.01	0.00	0.01	1.16
2003	0.00	0.00	0.01	0.24	0.06	0.01	0.00	0.00	0.00	0.02	0.09	0.02	0.01	0.00	0.01	1.23
2004	0.00	0.00	0.01	0.15	0.05	0.00	0.00	0.00	0.00	0.01	0.09	0.02	0.01	0.00	0.01	1.02
2005	0.00	0.00	0.01	0.09	0.04	0.00	0.00	0.00	0.00	0.01	0.10	0.02	0.02	0.00	0.01	0.83
2006	0.00	0.00	0.01	0.10	0.04	0.01	0.00	0.00	0.00	0.02	0.11	0.02	0.02	0.00	0.01	0.64
2007	0.00	0.00	0.01	0.08	0.03	0.00	0.00	0.00	0.00	0.02	0.11	0.02	0.02	0.00	0.01	0.52
2008	0.00	0.00	0.01	0.07	0.02	0.00	0.00	0.00	0.00	0.02	0.08	0.01	0.02	0.00	0.01	0.56
2009	0.00	0.00	0.01	0.07	0.02	0.00	0.00	0.00	0.00	0.02	0.07	0.01	0.02	0.00	0.01	0.61
2010	0.00	0.00	0.01	0.15	0.02	0.00	0.00	0.00	0.00	0.02	0.09	0.01	0.02	0.00	0.01	0.96
Average	0.00	0.00	0.01	0.16	0.04	0.01	0.00	0.00	0.00	0.05	0.07	0.02	0.01	0.00	0.01	0.82

-continued-

Table I.3. Page 2 of 2 (stock groups 16-30).

Year	Stillaguamish Wild	Snohomish Wild	WA Coastal Hat	UpRiverBrights	Spring Creek Hat	Lwr Bonneville Hat	Fall Cowlitz Hat	Lewis R Wild	Willamette R Hat	Spr Cowlitz Hat	Col R Summer	Oregon Coast	WA Coastal Wild	Lyons Ferry	Mid Col R Brights	AI Total
1979	0.00	0.01	0.01	0.05	0.17	0.13	0.08	0.01	0.01	0.01	0.02	0.04	0.01	0.00	0.00	1.10
1980	0.00	0.01	0.01	0.04	0.14	0.10	0.08	0.01	0.01	0.02	0.02	0.04	0.01	0.00	0.00	0.96
1981	0.00	0.01	0.01	0.03	0.12	0.09	0.08	0.01	0.02	0.01	0.02	0.03	0.01	0.00	0.00	0.93
1982	0.00	0.01	0.01	0.03	0.13	0.10	0.09	0.01	0.02	0.01	0.01	0.04	0.01	0.00	0.01	1.01
1983	0.00	0.01	0.01	0.05	0.04	0.09	0.08	0.01	0.02	0.01	0.02	0.06	0.01	0.00	0.01	0.94
1984	0.00	0.01	0.01	0.08	0.05	0.08	0.07	0.01	0.02	0.01	0.02	0.07	0.01	0.00	0.00	1.00
1985	0.00	0.01	0.01	0.10	0.03	0.07	0.08	0.01	0.02	0.01	0.01	0.07	0.01	0.00	0.00	0.97
1986	0.00	0.00	0.01	0.15	0.02	0.12	0.09	0.01	0.02	0.01	0.02	0.07	0.02	0.00	0.01	1.03
1987	0.00	0.00	0.02	0.18	0.01	0.25	0.18	0.02	0.03	0.01	0.02	0.07	0.02	0.00	0.04	1.19
1988	0.00	0.00	0.02	0.14	0.03	0.12	0.27	0.02	0.03	0.01	0.02	0.07	0.03	0.00	0.04	1.13
1989	0.00	0.00	0.02	0.09	0.04	0.05	0.13	0.01	0.03	0.01	0.01	0.06	0.03	0.00	0.03	0.99
1990	0.00	0.00	0.02	0.06	0.04	0.03	0.06	0.01	0.03	0.01	0.01	0.06	0.02	0.00	0.02	0.89
1991	0.00	0.00	0.02	0.04	0.05	0.05	0.04	0.01	0.02	0.01	0.01	0.05	0.02	0.00	0.01	0.76
1992	0.00	0.00	0.02	0.05	0.04	0.06	0.05	0.01	0.01	0.01	0.01	0.05	0.02	0.00	0.01	0.78
1993	0.00	0.00	0.02	0.06	0.02	0.03	0.04	0.00	0.01	0.00	0.01	0.05	0.02	0.00	0.02	0.70
1994	0.00	0.00	0.01	0.05	0.02	0.02	0.02	0.01	0.01	0.00	0.01	0.05	0.02	0.00	0.01	0.53
1995	0.00	0.00	0.01	0.04	0.02	0.02	0.03	0.00	0.01	0.00	0.01	0.04	0.01	0.00	0.01	0.41
1996	0.00	0.00	0.01	0.06	0.03	0.02	0.04	0.00	0.01	0.00	0.01	0.04	0.01	0.00	0.02	0.49
1997	0.00	0.00	0.01	0.05	0.02	0.02	0.03	0.00	0.01	0.00	0.01	0.03	0.01	0.00	0.03	0.59
1998	0.00	0.00	0.01	0.05	0.02	0.02	0.02	0.00	0.01	0.00	0.01	0.03	0.01	0.00	0.02	0.56
1999	0.00	0.00	0.01	0.07	0.03	0.01	0.02	0.00	0.01	0.00	0.02	0.03	0.01	0.00	0.02	0.50
2000	0.00	0.00	0.01	0.06	0.02	0.02	0.02	0.01	0.01	0.00	0.03	0.03	0.01	0.00	0.02	0.52
2001	0.00	0.00	0.01	0.09	0.10	0.06	0.04	0.01	0.03	0.00	0.05	0.05	0.01	0.01	0.04	0.80
2002	0.00	0.00	0.01	0.13	0.18	0.07	0.07	0.01	0.03	0.01	0.06	0.07	0.01	0.01	0.06	1.16
2003	0.00	0.00	0.01	0.13	0.18	0.06	0.11	0.01	0.03	0.01	0.05	0.08	0.01	0.01	0.06	1.23
2004	0.00	0.00	0.01	0.12	0.17	0.04	0.08	0.01	0.02	0.01	0.05	0.07	0.02	0.01	0.05	1.02
2005	0.00	0.00	0.01	0.11	0.10	0.02	0.08	0.01	0.01	0.01	0.05	0.05	0.01	0.01	0.04	0.83
2006	0.00	0.00	0.01	0.07	0.03	0.01	0.04	0.00	0.01	0.01	0.05	0.03	0.01	0.01	0.03	0.64
2007	0.00	0.00	0.01	0.04	0.02	0.01	0.02	0.00	0.01	0.00	0.04	0.02	0.01	0.01	0.03	0.52
2008	0.00	0.00	0.01	0.08	0.06	0.02	0.03	0.00	0.01	0.00	0.04	0.01	0.01	0.01	0.03	0.56
2009	0.00	0.00	0.01	0.09	0.06	0.01	0.06	0.00	0.02	0.01	0.05	0.02	0.01	0.01	0.03	0.61
2010	0.00	0.00	0.01	0.13	0.22	0.02	0.08	0.00	0.02	0.01	0.07	0.02	0.01	0.01	0.04	0.96
Average	0.00	0.00	0.01	0.08	0.07	0.06	0.07	0.01	0.02	0.01	0.03	0.05	0.01	0.00	0.02	0 82

Appendix J. Fishery exploitation rate indices by stock, age and fishery, based on CWT data, 1975–2007.

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Table J.1. Alaska troll Stratified Proportion Fishery Index (SPFI) values as landed catch, based on CWT data.

YEAR	SPFI	WIN/SPR	JUNE IN	JUNE OUT	JULY IN	JULY OUT	FALL
1979	0.9004	1.1771	0.6274	1.1077	0.5205	0.8611	0.8611
1980	1.1226	0.6330	1.2063	0.8708	0.9753	1.3543	1.3543
1981	1.0980	1.1791	0.6463	1.0702	1.2455	1.1454	1.1454
1982	0.8791	1.0108	1.5200	0.9514	1.2587	0.6392	0.6392
1983	0.9610	1.0044	0.8957	0.6834	1.1081	1.2544	1.2544
1984	0.6872	0.3665	1.6032	1.0283	0.4091	0.5264	0.5264
1985	0.7625	0.4649	1.2554	0.6673	1.0367	0.8403	0.8403
1986	0.5419	0.4487	0.6138	0.1890	0.7932	1.2978	1.2978
1987	0.5689	0.6161	0.8333	0.2033	1.9112	0.7025	0.7025
1988	0.4729	1.4306	0.1996	0.0016	1.6800	0.6960	0.6960
1989	0.5472	0.8782	0.6609	0.1290	0.7546	0.6089	0.6089
1990	0.8161	0.6947	1.3071	0.1273	1.6060	1.2293	1.2293
1991	0.6621	1.5067	1.3189	0.2331	0.6848	0.8004	0.8004
1992	0.4360	1.0489	0.7518	0.0770	0.2972	0.4040	0.4040
1993	0.4946	0.7714	0.4251	0.0177	0.3542	0.9572	0.9572
1994	0.4655	0.7021	0.1711	0.0416	0.2244	0.7113	0.7113
1995	0.5567	0.4817	0.4661	0.0538	1.3052	0.8373	0.8373
1996	0.4778	0.5530	0.9611	0.0987	0.6909	0.5738	0.5738
1997	0.6846	0.6550	0.8807	0.1598	0.1152	1.5923	1.5923
1998	0.4497	0.8353	0.2238	0.0612	0.5342	1.0162	1.0162
1999	0.6689	0.8168	0.3849	0.1284	0.1592	1.0437	1.0437
2000	0.4810	0.9289	0.1386	0.0894	0.0795	1.5185	1.5185
2001	0.4083	0.5992	0.1750	0.0800	0.1788	0.6797	0.6797
2002	0.5673	0.4411	0.1504	0.0679	0.2112	1.2284	1.2284
2003	0.5396	0.7308	0.1749	0.0765	0.4301	0.9419	0.9419
2004	0.4804	0.8445	0.2642	0.0798	0.4013	0.9928	0.9928
2005	0.5445	0.9614	0.3122	0.1351	0.5860	1.3168	1.3168
2006	0.7193	1.5626	1.1402	0.1389	0.1627	1.4636	1.4636
2007	0.6566	1.3021	1.4281	0.1498	0.2431	1.1352	1.1352
2008	0.3977	0.7753	0.9709	0.0694	0.1059	0.5415	0.5415

ER Stock Identifiers:			
Alaska Southeast	Age 4	Age 5	Age 6
Quinsam	Age 4	Age 5	
Robertson Creek	Age 3	Age 4	Age 5
Salmon River Hatchery	Age 4	Age 5	
Columbia Upriver Brights	Age 4	Age 5	
Willamette Spring Hatchery	Age 4	Age 5	

Table J.2. Alaska troll Stratified Proportion Fishery Index (SPFI) values as total mortality, based on CWT data.

YEAR	SPFI	WIN/SPR	JUNE IN	JUNE OUT	JULY IN	JULY OUT	FALL
1979	0.8829	1.1782	0.5789	1.1007	0.5177	0.8295	0.8295
1980	1.0374	0.6340	1.1299	0.8234	0.8477	1.2001	1.2001
1981	1.0907	1.1790	0.5963	1.1049	1.1593	1.1550	1.1550
1982	0.9890	1.0088	1.6949	0.9710	1.4753	0.8155	0.8155
1983	1.1087	1.0049	1.1214	0.6991	1.0147	1.6983	1.6983
1984	0.7404	0.3653	1.7375	1.0321	0.6390	0.6226	0.6226
1985	0.8769	0.4642	1.3061	0.6493	1.0070	1.0991	1.0991
1986	0.6141	0.4507	0.7017	0.1851	0.9110	1.5063	1.5063
1987	0.6548	0.6171	0.8059	0.1917	2.5076	0.8412	0.8412
1988	0.4942	1.4336	0.2438	0.0073	1.8139	0.7097	0.7097
1989	0.5985	0.8811	0.6859	0.1274	0.8521	0.6608	0.6608
1990	1.0653	0.9235	1.6032	0.1476	1.5787	1.6372	1.6372
1991	0.7083	1.5629	1.2875	0.2209	0.8692	0.8483	0.8483
1992	0.5073	1.0999	0.7408	0.0730	0.3082	0.5713	0.5713
1993	0.5559	0.8110	0.4111	0.0187	0.3550	1.1154	1.1154
1994	0.5672	0.7454	0.2522	0.0419	0.2941	0.9171	0.9171
1995	0.6852	0.5325	0.5569	0.0561	1.3253	1.0395	1.0395
1996	0.5853	0.6061	0.9735	0.1040	0.7270	0.7108	0.7108
1997	0.6915	0.7078	0.8419	0.1591	0.1414	1.5323	1.5323
1998	0.4393	0.8879	0.2368	0.0609	0.4674	0.9547	0.9547
1999	0.7455	0.8842	0.3983	0.1246	0.2152	1.1588	1.1588
2000	0.5151	1.0198	0.1598	0.0964	0.1206	1.5749	1.5749
2001	0.4356	0.6383	0.1737	0.0769	0.2209	0.7150	0.7150
2002	0.5697	0.5090	0.1638	0.0710	0.2342	1.1619	1.1619
2003	0.5343	0.8119	0.1801	0.0777	0.3931	0.8852	0.8852
2004	0.4815	0.9123	0.2645	0.0810	0.3983	0.9515	0.9515
2005	0.5823	1.1390	0.5046	0.1401	0.5443	1.2966	1.2966
2006	0.7379	1.6610	1.2365	0.1395	0.1734	1.4482	1.4482
2007	0.6721	1.3857	1.5466	0.1452	0.2318	1.1290	1.1290
2008	0.4252	0.7821	0.9166	0.0643	0.1470	0.5863	0.5863

ER Stock Identifiers:			
Alaska Southeast	Age 4	Age 5	Age 6
Quinsam	Age 4	Age 5	
Robertson Creek	Age 3	Age 4	Age 5
Salmon River Hatchery	Age 4	Age 5	
Columbia Upriver Brights	Age 4	Age 5	
Willamette Spring Hatchery	Age 4	Age 5	

Table J.3. Landed catch exploitation rate indices by stock and age in the NBC troll fishery, based on CWT data. Base period is 1979-1982.

Year	AKS Age 4	QUI Age 3	QUI Age 4	RBT Age 3	RBT Age 4	RBT Age 5	SRH Age 3	SRH Age 4	SRH Age 5	URB Age 3	URB Age 4	URB Age 5	WSH Age 4	Fishery Index
1979	NA	0.5508	0.8691	1.2278	0.8306	0.4805	NA	NA	NA	0.4627	1.1907	NA	0.6487	0.78
1980	NA	0.7948	0.9847	1.1057	0.8522	0.7876	0.9796	NA	NA	1.1057	0.9886	1.2702	1.187	0.96
1981	NA	1.7733	1.4462	0.751	1.0467	1.7319	1.5875	1.1131	NA	NA	1.1524	1.3124	1.5239	1.33
1982	1	0.8811	0.7001	0.9154	1.2705	NA	0.4328	0.8869	1	1.4316	0.6683	0.4174	0.6404	0.84
1983	1.5866	1.2612	1.4723	1.0398	0.7065	0.5989	0.4231	0.5327	1.232	1.7809	1.3061	NA	1.276	0.89
1984	1.1357	0.2536	0.5066	0.3987	1.3222	2.0094	NA	0.6031	2.7287	1.0371	2.1028	NA	0.5008	1.29
1985	0.7803	0.2457	0.5818	0.9124	1.9392	NA	0.3061	NA	2.2668	1.4164	1.7111	1.6799	0.2158	1.28
1986	0.7274	0.9415	0.8476	NA	1.0484	NA	0.0912	0.5314	NA	1.0983	1.3888	1.9838	NA	0.87
1987	0.6137	0.3535	0.6224	0.4896	NA	NA	0.1627	0.3726	2.2355	1.2267	1.7684	2.8899	NA	1.05
1988	2.0799	0.1908	0.7015	0.3334	0.6214	NA	NA	0.2992	0.7434	0.3807	1.0805	2.3578	0.7804	0.72
1989	0.948	0.4365	0.4541	0.3594	0.8831	1.0547	0.1072	0.2588	2.1436	NA	1.037	4.216	0.3639	0.99
1990	1.9533	0.3629	0.959	0.3143	0.7168	0.5617	0.14	0.2322	1.9853	NA	1.2462	2.3814	0.3009	0.81
1991	0.6526	0.4211	0.661	0.3864	0.7509	1.1423	0.1152	0.3874	2.0449	NA	NA	NA	0.2724	0.77
1992	0.1226	NA	1.861	0.2934	0.5817	0.682	0.1065	0.2603	0.9701	NA	NA	NA	0.0989	0.60
1993	0.2833	NA	NA	0.1782	0.6173	0.8375	0.1061	0.5732	2.7562	0	1.147	NA	0.2048	0.86
1994	0.0551	NA	NA	0.3327	0.7435	0.8975	0.1734	0.5087	2.1802	NA	0.934	2.0129	0.1154	0.90
1995	0	NA	NA	NA	0.4111	0.2616	0.0989	0	0.8504	NA	NA	0.5641	0.1483	0.31
1996	0	NA	NA	0	NA	NA	0	0	0	0	0	NA	0	0.00
1997	0	0.3523	0.3985	0.2112	0.3855	NA	0.1152	0.11	0.4425	NA	0.6778	NA	0.2678	0.30
1998	0	0	0	NA	0.568	NA	0.0692	0.5202	1.2512	0	NA	1.6501	0	0.56
1999	0	0.1651	0.1932	NA	0.3403	0.5549	0.0827	0.1847	0.4126	NA	1.1946	NA	0	0.35
2000	0	0	0.0623	NA	NA	NA	0.0386	0.2621	0.3369	NA	0	0	0.0135	0.14
2001	0	0	0.0149	0	NA	NA	0.0379	0.1637	0.8932	0	0	NA	0.0206	0.20
2002	0.4737	0	0.1416	0	0.4649	NA	0.1493	0.2859	1.4979	0.1036	0.1937	NA	0.1846	0.40
2003	0	0	0	0.0464	0.0498	0	0.0404	0.283	0.5405	0	0.7572	0.8811	0.0525	0.23
2004	0.9146	0	0.0569	0.0891	0.1915	0.3954	0.0738	0.2429	0.9431	0	0.747	1.3495	0.1891	0.39
2005	0.1814	0.0739	0.0426	0.0338	0.3206	0.1034	0.085	0.4358	0.9702	0.121	1.4894	1.0618	0.0955	0.43
2006	0.3846	0.0816	0.0664	0.1026	0.2611	0.2683	0.0268	0.4228	1.5612	NA	1.4044	1.511	0.0472	0.54
2007	0.0838	NA	0.4043	NA	0.493	0.5206	NA	0.2293	1.2474	NA	NA	NA	0	0.51
2008	0.052	0	0.1364	0.0409	0.604	0.194	0.0384	NA	NA	0.3339	NA	NA	0.0376	0.21

Stock Identifiers
AKS = ALASKA SPRING QUI = QUINSAM RBT = ROBERTSON CREEK SRH = SALMON RIVER HATCHERY
URB = COLUMBIA UPRIVER BRIGHT WSH = WILLAMETTE SPRING

Table J.4. Total mortality exploitation rate indices by stock and age in the NBC troll fishery, based on CWT data. Base period is 1979-1982.

Year	AKS Age 4	QUI Age 3	QUI Age 4	RBT Age 3	RBT Age 4	RBT Age 5	SRH Age 3	SRH Age 4	SRH Age 5	URB Age 3	URB Age 4	URB Age 5	WSH Age 4	Fishery Index
1979	NA	0.584	0.841	1.252	0.839	0.477	NA	NA	NA	0.579	1.2	NA	0.615	0.79
1980	NA	0.799	0.987	1.025	0.849	0.782	0.967	NA	NA	1.078	0.992	1.267	1.111	0.95
1981	NA	1.747	1.459	0.755	1.042	1.741	1.513	1.11	NA	NA	1.158	1.324	1.53	1.32
1982	1	0.87	0.712	0.968	1.269	NA	0.52	0.89	1	1.343	0.65	0.409	0.743	0.85
1983	1.414	1.131	1.455	0.915	0.694	0.613	0.478	0.541	1.232	1.521	1.271	NA	1.093	0.87
1984	0.96	0.24	0.507	0.445	1.292	2.033	NA	0.608	2.771	0.929	2.097	NA	0.429	1.25
1985	0.682	0.244	0.572	0.96	1.9	NA	0.306	NA	2.302	1.199	1.695	1.647	0.18	1.20
1986	0.625	0.863	0.821	NA	1.034	NA	0.117	0.525	NA	0.974	1.382	1.944	NA	0.83
1987	0.578	0.438	0.655	0.479	NA	NA	0.181	0.371	2.318	1.613	1.819	2.916	NA	1.04
1988	1.922	0.279	0.717	0.335	0.626	NA	NA	0.307	0.743	0.844	1.131	2.389	0.781	0.74
1989	0.839	0.458	0.471	0.388	0.875	1.065	0.209	0.274	2.2	NA	1.103	4.222	0.331	0.98
1990	2.009	0.492	0.987	0.388	0.731	0.576	0.238	0.247	2.056	NA	1.322	2.438	0.287	0.82
1991	0.636	0.527	0.669	0.468	0.755	1.162	0.236	0.399	2.105	NA	NA	NA	0.27	0.77
1992	0.19	NA	1.933	0.397	0.597	0.705	0.146	0.268	1.01	NA	NA	NA	0.105	0.61
1993	0.219	NA	NA	0.326	0.632	0.86	0.218	0.584	2.842	0.285	1.157	NA	0.2	0.86
1994	0.107	NA	NA	0.517	0.757	0.917	0.293	0.516	2.24	NA	0.962	2.072	0.112	0.90
1995	0.069	NA	NA	NA	0.421	0.284	0.162	0.016	0.922	NA	NA	0.603	0.18	0.33
1996	0.112	NA	NA	0.064	NA	NA	0.057	0.012	0.06	0.288	0.065	NA	0.008	0.05
1997	0	0.35	0.386	0.242	0.381	NA	0.122	0.111	0.443	NA	0.678	NA	0.219	0.29
1998	0	0	0	NA	0.568	NA	0.15	0.519	1.276	0.084	NA	1.617	0	0.54
1999	0	0.168	0.187	NA	0.327	0.562	0.096	0.185	0.413	NA	1.198	NA	0	0.34
2000	0	0	0.06	NA	NA	NA	0.051	0.258	0.337	NA	0	0	0.012	0.13
2001	0.044	0	0.014	0	NA	NA	0.05	0.164	0.893	0	0	NA	0.017	0.18
2002	0.513	0	0.137	0.029	0.467	NA	0.171	0.287	1.538	0.138	0.198	NA	0.183	0.39
2003	0.068	0	0	0.042	0.051	0	0.073	0.285	0.553	0.146	0.772	0.896	0.05	0.23
2004	0.85	0	0.055	0.121	0.2	0.413	0.121	0.253	1.002	0.133	0.755	1.402	0.179	0.39
2005	0.197	0.06	0.041	0.061	0.324	0.103	0.159	0.447	1.013	0.492	1.54	1.115	0.085	0.44
2006	0.391	0.066	0.064	0.134	0.266	0.266	0.129	0.428	1.59	NA	1.426	1.505	0.053	0.53
2007	0.091	NA	0.427	NA	0.488	0.517	NA	0.23	1.271	NA	NA	NA	0	0.50
2008	0.06	0	0.132	0.068	0.614	0.193	0.099	NA	NA	0.346	NA	NA	0.037	0.21

Stock Identifiers:
AKS = ALASKA SPRING QUI = QUINSAM RBT = ROBERTSON CREEK SRH = SALMON RIVER HATCHERY
URB = COLUMBIA UPRIVER BRIGHT WSH = WILLAMETTE SPRING

Table J.5. Landed catch exploitation rate indices by stock and age in the WCVI troll fishery, based on CWT data. Base period is 1979-1982.

Year	CWF Age 4	GAD Age 3	GAD Age 4	LRH Age 3	LRH Age 4	LRW Age 4	RBT Age 3	RBT Age 4	RBT Age 5	SAM Age 3	SAM Age 4	SAM Age 5	SPR Age 3	SPR Age 4	SPS Age 3	SPS Age 4	SRH Age 3	SRH Age 4	SUM Age 4	URB Age 3	URB Age 4	UWA Age 3	UWA Age 4	WSH Age 4	Fishery Index
1979	NA	NA	NA	1 112	NA	NA	1 154	1 261	NA	NA	1 000	1 000	0 955	0 827	NA	1 131	NA	NA	NA	1 396	1 745	0 700	1 216	1 025	1 047
1980	NA	NA	NA	0 564	0 999	NA	1 380	1 420	NA	NA	NA	NA	1 183	1 410	NA	NA	1 000	NA	0 688	1 340	0 939	1 388	0 862	1 111	1 043
1981	0 794	0 715	NA	1 159	0 757	0 848	0 701	0 584	1 000	NA	NA	NA	0 952	0 637	0 718	NA	NA	1 000	1 312	0 200	0 893	0 846	0 886	0 627	0 861
1982	1 206	1 285	1 000	1 165	1 244	1 153	0 765	0 736	NA	1 000	NA	NA	0 910	1 127	1 282	0 869	NA	NA	NA	1 065	0 423	1 066	1 036	1 237	1 051
1983	1 375	NA	1 404	1 711	1 617	0 962	0 304	0 679	2 500	NA	0 958	NA	1 497	0 939	1 643	0 886	0 632	0 733	NA	0 383	0 436	0 706	1 079	0 274	1 167
1984	1 304	2 090	NA	2 198	2 762	NA	1 237	1 044	1 683	NA	NA	1 087	1 348	1 371	1 633	0 966	NA	0 814	NA	0 878	1 265	1 754	0 731	0 689	1 445
1985	0 896	NA	0 845	1 250	1 084	NA	0 688	-	NA	NA	NA	NA	0 543	0 953	0 824	0 657	NA	NA	NA	0 761	1 025	0 841	1 050	0 438	0 869
1986	1 280	NA	NA	1 294	1 174	0 471	NA	0 567	NA	NA	NA	NA	1 202	1 003	0 904	1 073	NA	0 412	NA	1 471	0 724	0 852	1 219	NA	1 078
1987	0 859	NA	NA	0 956	NA	1 460	0 274	NA	NA	NA	NA	NA	0 465	NA	0 760	0 511	0 118	0 491	-	1 001	0 789	0 374	0 407	NA	0 582
1988	0 843	0 433	NA	1 148	1 311	1 056	0 454	0 573	NA	0 615	NA	NA	1 005	NA	0 304	0 686	NA	1 418	1 143	0 088	1 890	NA	0 774	0 856	0 919
1989	0 527	0 255	0 490	0 291	0 542	0 566	0 168	0 341	-	0 214	0 602	NA	0 592	0 395	0 352	0 379	0 151	NA	0 740	NA	0 894	NA	NA	0 538	0 470
1990	0 714	1 104	0 940	1 182	0 400	1 213	0 675	0 558	1 535	0 414	0 860	NA	0 939	0 724	0 749	0 816	0 317	0 956	1 311	NA	1 614	NA	NA	0 826	0 865
1991	NA	NA	0 940	0 817	NA	0 746	0 602	0 547	0 735	0 254	0 566	1 100	0 602	0 626	0 427	0 522	0 440	0 791	0 432	NA	NA	NA	NA	0 077	0 675
1992	1 149	NA	0 454	0 667	NA	0 321	1 635	2 442	5 132	1 076	0 266	NA	0 438	0 741	0 745	0 718	0 596	6 054	0 746	NA	NA	NA	NA	0 167	0 824
1993	NA	NA	NA	1 119	0 649	NA	1 179	2 267	2 447	1 143	0 423	NA	0 547	0 999	1 056	0 518	0 538	2 659	NA	0 621	1 937	NA	NA	0 430	0 867
1994	0 117	NA	NA	NA	NA	0 224	0 618	0 734	1 391	0 087	0 702	NA	0 840	0 642	0 223	0 461	NA	0 850	NA	NA	0 940	NA	NA	0 249	0 552
1995	NA	0 223	NA	NA	NA	0 432	NA	0 437	0 365	0 161	0 389	NA	0 361	0 349	0 281	0 257	0 016	NA	NA	NA	NA	NA	NA	0 115	0 318
1996	-	-	-	-	NA	NA	-	NA	NA	-	-	NA	-	NA	-	-	-	-	-	-	-	NA	NA	-	-
1997	0 341	NA	0 211	0 762	NA	NA	-	0 062	NA	0 035	0 248	NA	0 504	0 479	0 035	0 289	-	0 080	0 075	NA	0 110	NA	NA	-	0 311
1998	NA	NA	NA	NA	NA	NA	NA	-	NA	NA	0 077	NA	0 046	-	-	0 030	-	-	-	0 015	NA	NA	NA	0 035	0 028
1999	NA	0 048	NA	0 097	NA	NA	NA	NA	-	NA	0 074	NA	0 016	NA	0 020	0 055	-	-	0 028	NA	-	NA	NA	-	0 046
2000	NA	NA	1 225	0 098	1 854	NA	NA	NA	NA	NA	1 114	NA	0 047	0 765	0 036	0 713	-	-	0 219	0 119	0 510	NA	NA	0 076	0 730
2001	NA	0 718	1 222	0 310	NA	0 723	-	NA	NA	0 371	0 367	NA	0 147	0 604	0 452	0 536	-	0 120	0 448	0 063	0 169	NA	NA	0 176	0 499
2002	0 610	0 172	0 676	0 370	0 493	NA	0 016	-	NA	0 279	0 416	NA	0 300	0 756	0 443	0 557	-	-	0 537	0 089	0 212	NA	NA	0 335	0 467
2003	0 556	0 116	0 740	0 313	0 928	0 125	-	-	NA	NA	0 602	NA	0 305	0 596	0 381	0 566	-	-	0 599	0 177	0 105	NA	NA	0 587	0 503
2004	NA	0 080	1 183	0 419	1 070	0 125	0 033	0 021	-	0 186	0 546	NA	0 354	0 804	0 356	0 826	0 081	0 560	0 259	0 161	0 491	NA	NA	2 159	0 612
2005	0 298	0 757	0 969	0 790	1 795	0 124	-	-	NA	0 119	0 801	NA	0 888	1 188	0 580	0 764	0 070	0 513	0 442	0 130	0 460	NA	NA	1 242	0 794
2006	NA	0 276	0 940	NA	NA	0 463	-	-	-	0 388	0 771	NA	0 572	1 392	0 531	0 724	0 066	0 587	0 262	NA	0 725	NA	NA	1 430	0 699
2007	NA	0 881	0 818	0 731	NA	NA	NA	0 019	NA	1 164	0 582	NA	0 589	0 934	0 926	0 694	NA	-	0 402	NA	0 135	NA	NA	0 189	0 675
2008	NA	0 212	0 340	0 408	NA	NA	-	NA	-	0 378	0 322	NA	0 186	NA	0 299	0 300	0 077	NA	0 033	0 179	NA	NA	NA	0 130	0 261

Stock Identifiers

CWF = COWLITZ FALL TULE
GAD = G ADAMS FALL FING
LRH = LOWER RIVER TULE
LRW = LEWIS RIVER WILD
RBT = ROBERTSON CREEK
SAM = SAMISH FALL FING
SPR = SPRING CREEK TULE
SPS = SO SOUND FALL FING
SRH = SALMON RIVER HATCHERY
SUM = COL RIVER SUMMERS
URB = COLUMBIA UPRIVER BRIGHT
UWA = U OF W FALL ACCEL
WSH = WILLAMETTE SPRING
CHI = CHILLAWACK

Table J.6. Total mortality exploitation rate indices by stock and age in the WCVI troll fishery, based on CWT data. Base period is 1979-1982.

Year	CWF Age 4	GAD Age 3	GAD Age 4	LRH Age 3	LRH Age 4	LRW Age 4	RBT Age 3	RBT Age 4	RBT Age 5	SAM Age 3	SAM Age 4	SAM Age 5	SPR Age 3	SPR Age 4	SPS Age 3	SPS Age 4	SRH Age 3	SRH Age 4	SUM Age 4	URB Age 3	URB Age 4	UWA Age 3	UWA Age 4	WSH Age 4	Fishery Index
1979	NA	NA	NA	1 087	NA	NA	1 234	1 271	NA	NA	1 000	1 000	0 939	0 826	NA	1 133	NA	NA	NA	1 393	1 738	0 684	1 223	0 975	1 040
1980	NA	NA	NA	0 572	0 990	NA	1 303	1 407	NA	NA	NA	NA	1 136	1 386	NA	NA	1 000	NA	0 685	1 329	0 944	1 345	0 863	1 099	1 028
1981	0 787	0 717	NA	1 142	0 749	0 858	0 683	0 582	1 000	NA	NA	NA	0 907	0 638	0 749	NA	NA	1 000	1 315	0 249	0 878	0 816	0 856	0 648	0 850
1982	1 213	1 283	1 000	1 199	1 261	1 142	0 780	0 741	NA	1 000	NA	NA	1 018	1 150	1 251	0 867	NA	NA	NA	1 029	0 440	1 154	1 058	1 278	1 076
1983	1 358	NA	1 414	1 557	1 554	0 964	0 303	0 667	2 561	NA	0 959	NA	1 317	0 898	1 543	0 895	0 626	0 707	NA	0 352	0 412	0 668	1 064	0 279	1 128
1984	1 292	1 681	NA	1 981	2 653	NA	1 116	1 023	1 746	NA	NA	1 075	1 170	1 280	1 418	0 951	NA	0 748	NA	0 797	1 228	1 577	0 737	0 630	1 367
1985	0 901	NA	0 822	1 175	1 069	NA	0 624	-	NA	NA	NA	NA	0 521	0 889	0 732	0 646	NA	NA	NA	0 722	0 997	0 763	1 014	0 427	0 832
1986	1 297	NA	NA	1 110	1 099	0 464	NA	0 534	NA	NA	NA	NA	1 095	0 958	0 823	1 045	NA	0 353	NA	1 335	0 712	0 795	1 194	NA	1 018
1987	0 877	NA	NA	1 164	NA	1 445	0 271	NA	NA	NA	NA	NA	0 426	NA	0 844	0 518	0 130	0 491	-	1 120	0 836	0 375	0 405	NA	0 615
1988	0 907	0 475	NA	1 299	1 394	1 086	0 446	0 573	NA	0 675	NA	NA	0 941	NA	0 373	0 711	NA	1 319	1 118	0 532	1 978	NA	0 783	0 863	0 954
1989	0 544	0 353	0 492	0 313	0 563	0 579	0 170	0 331	-	0 337	0 605	NA	0 590	0 388	0 379	0 382	0 176	NA	0 743	NA	0 931	NA	NA	0 514	0 479
1990	0 749	1 047	0 935	1 132	0 436	1 213	0 654	0 563	1 594	0 456	0 854	NA	0 881	0 718	0 893	0 833	0 361	0 894	1 291	NA	1 628	NA	NA	0 819	0 866
1991	NA	NA	0 962	0 716	NA	0 755	0 601	0 552	0 758	0 405	0 575	1 088	0 580	0 620	0 507	0 530	0 460	0 742	0 422	NA	NA	NA	NA	0 079	0 666
1992	1 150	NA	0 469	0 734	NA	0 329	1 798	2 464	5 304	0 912	0 271	NA	0 480	0 739	0 741	0 718	0 682	5 385	0 779	NA	NA	NA	NA	0 223	0 831
1993	NA	NA	NA	1 171	0 700	NA	1 408	2 292	2 564	1 093	0 438	NA	0 569	0 987	1 053	0 522	0 694	2 473	NA	0 877	1 946	NA	NA	0 419	0 897
1994	0 114	NA	NA	NA	NA	0 238	0 677	0 759	1 448	0 238	0 701	NA	0 809	0 641	0 233	0 453	NA	0 794	NA	NA	0 954	NA	NA	0 248	0 554
1995	NA	0 287	NA	NA	NA	0 471	NA	0 457	0 406	0 240	0 419	NA	0 402	0 369	0 315	0 272	0 043	NA	NA	NA	NA	NA	NA	0 133	0 346
1996	0 033	0 066	0 025	-	NA	NA	0 032	NA	NA	0 060	0 015	NA	0 040	NA	0 063	0 021	0 026	0 023	0 027	0 087	0 060	NA	NA	0 013	0 029
1997	0 330	NA	0 214	0 853	NA	NA	0 005	0 058	NA	0 096	0 256	NA	0 549	0 500	0 130	0 299	0 008	0 069	0 077	NA	0 104	NA	NA	-	0 338
1998	NA	NA	NA	NA	NA	NA	NA	-	NA	NA	0 074	NA	0 038	-	-	0 029	-	-	-	0 013	NA	NA	NA	0 029	0 025
1999	NA	0 035	NA	0 080	NA	NA	NA	NA	-	NA	0 070	NA	0 013	NA	0 016	0 052	-	-	0 026	NA	-	NA	NA	-	0 041
2000	NA	NA	1 195	0 081	1 784	NA	NA	NA	NA	NA	1 064	NA	0 046	0 714	0 027	0 694	-	-	0 210	0 098	0 482	NA	NA	0 062	0 673
2001	NA	0 537	1 234	0 260	NA	0 684	-	NA	NA	0 286	0 351	NA	0 125	0 563	0 355	0 520	-	0 103	0 430	0 061	0 160	NA	NA	0 148	0 456
2002	0 608	0 139	0 655	0 311	0 474	NA	0 013	-	NA	0 208	0 403	NA	0 254	0 716	0 351	0 541	-	-	0 516	0 074	0 209	NA	NA	0 284	0 430
2003	0 538	0 085	0 716	0 266	0 882	0 125	-	-	NA	NA	0 574	NA	0 258	0 565	0 297	0 550	-	-	0 574	0 146	0 100	NA	NA	0 492	0 463
2004	NA	0 058	1 153	0 360	1 020	0 118	0 026	0 019	-	0 138	0 522	NA	0 300	0 764	0 281	0 804	0 076	0 487	0 249	0 133	0 464	NA	NA	1 819	0 561
2005	0 288	0 582	0 945	0 655	1 706	0 117	-	-	NA	0 088	0 777	NA	0 751	1 126	0 453	0 740	0 061	0 453	0 425	0 108	0 435	NA	NA	1 046	0 728
2006	NA	0 213	0 917	NA	NA	0 438	-	-	-	0 310	0 736	NA	0 485	1 341	0 419	0 702	0 058	0 503	0 250	NA	0 686	NA	NA	1 205	0 645
2007	NA	0 648	0 796	0 606	NA	NA	NA	0 017	NA	0 904	0 566	NA	0 487	0 871	0 719	0 675	NA	-	0 387	NA	0 128	NA	NA	0 181	0 612
2008	NA	0 161	0 325	0 338	NA	NA	-	NA	-	0 288	0 307	NA	0 156	NA	0 232	0 292	0 067	NA	0 031	0 158	NA	NA	NA	0 107	0 233

Stock Identifiers

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URB = COLUMBIA UPRIVER BRIGHT
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Appendix K. Issues with ERA and model calibration

Issues with CWT Data

Columbia River /Ocean fisheries

Catch/sample ratios (calculated from data in catch sample ID records) were audited and suspiciously high or low expansions were compared against agency records to verify data reported in RMPC. Sample reporting for 1984 catch sample ID #1984130049 was found to be in error. The leading 10,000 place integer had been dropped from the reported sample (e.g. 0,000 reported instead of 10,000). Number Sampled was reported as 4641instead of 14641. Therefore an expansion factor of 2.33 was uploaded to CAS as auxiliary data and applied to all CWT recoveries associated with this catch sample ID. Additionally, catch/sample reports for catch sample ID#1987130075 were found to be in error. An expansion factor of 4.402 was uploaded as auxiliary data to CAS and applied to all CWT recoveries associated with this catch sample ID in CAS. After appropriate corrections were applied, new c-files from the affected stocks regenerated to rectify this error.

- Updated roll-ups in Oregon troll fisheries were noted to affect expanded CWT recovery estimates in 1978. These new CWT recovery data are confirmed to be correctly represented in CAS/RMPC.
- Suspicious catch sample ratios were identified in catches occurring between 1977 and 1990. Unless noted below, all remaining suspect expansion values were confirmed as valid.

Salmon River Hatchery

- 1988 escapement expansions found to be in error. Corrections uploaded to CAS via "SRH aux 2010.csv".
- 1993 terminal sport expansions found to be in error. Corrections uploaded to CAS via "SRH aux 2010.csv".
- 1997 escapement expansions found to be in error. Corrections to uploaded to CAS via "SRH aux 2010.csv".

Willamette

- 1984, 1985 & 1986 terminal sport expansions found to be in error. Corrections to CAS uploaded through "WSH2010aux.csv".

Changes from Previous Calibration Procedures

Changes to the Input Data for the Chinook Model calibration.

The following changes were made:

- Washington Coastal Net numbers were changed after discovering that the historical numbers contained some freshwater sport catch.
- Some changes were made to historical CWT data from Oregon and early brood information was added for SRH and AKS.
- FRL maturation rates from 1974-1983 were changed from the 1984-1985 average to the 1984-1989 average. This improved the fit of the age composition of the escapement for FRL for the early years. The change to the FRL maturation rate averages in CLB1007

improved the fit to the age specific FRL escapements in the early years, although it seems to have had a negligible effect on other aspects of the calibration.

- We attempted to estimate the appropriate maturation rate scalars for the URB wild and hatchery mix using several methods that used both CWT data and information from the Columbia River Bigsheets. Three calibrations CLB1008 - CLB1010 that utilized these scalars fixed the problem of underestimating the age 5 fish but unfortunately they seemed to shift too many fish to age 5 and resulted in underestimating the age 3 fish. Due to time constraints it was not possible to investigate the age composition for URBs nor to look into other stocks with strange fits to the escapement data such as the Oregon Coastal (ORC) stock. Calibrations CLB1008-CLB1010 overestimate the 2010 AIs and also fail to completely correct the fits to the URB age specific terminal returns. CLB1007 was chosen as the best calibration for 2010, though it still had problems fitting to the age specific escapements for some stocks, FRL has been improved and the other problems have been around for awhile.